

Questionnaires for Research (Study)

Table S1. Survey Questions in Study

Factor	Question	Code
COVID-19-related factor (C)	I would travel abroad if a COVID-19 vaccine is developed.	C-1
	I would travel abroad if a cure for COVID-19 is developed.	C-2
	If the number of new confirmed COVID-19 cases in my destination country begins to decline, I would travel abroad.	C-3
	I would travel abroad if the number of new confirmed COVID-19 cases per day falls below 100 in my destination country.	C-4
	I would travel abroad if the number of new confirmed COVID-19 cases per day falls below 50 in my destination country.	C-5
	I would travel abroad if the number of new confirmed COVID-19 cases per day falls below 10 in my destination country.	C-6
	I would travel abroad if COVID-19 does not begin to spread again in my destination country.	C-7
	I would travel abroad if my destination country declares itself COVID-19-free (zero new confirmed case).	C-8
	I would travel abroad if my destination country does not impose entry restrictions.	C-9
	I will definitely travel abroad if the circumstances allow me to do so, regardless of the COVID-19 situation.	C-10
Factor related to self-isolation upon entry and departure (Q)	I would travel abroad if there were no entry restrictions, even if I have to self-isolate (currently 14 days) upon arrival.	Q-1
	I would travel abroad if the self-isolation period was reduced to 2 weeks or less (currently 14 days) upon arrival.	Q-2
	I would travel abroad if the self-isolation period was reduced to 1 week or less (currently 14 days) upon arrival.	Q-3
	I would travel abroad if self-isolation was no longer required.	Q-4
	I will definitely travel abroad if the circumstances allow me to do so, regardless of self-isolation.	Q-5
Destination-related factor (D)	I would travel abroad if the sanitary conditions of tourist attractions in my destination country were good.	D-1
	I would travel abroad if the sanitary conditions of accommodation facilities in my destination country were good.	D-2
	I would travel abroad if the sanitary conditions of restaurants in my destination country were good.	D-3
	I would travel abroad if the sanitary conditions of public transportation in my destination country were good.	D-4
	I would travel abroad if the climate in my destination country was hot.	D-5
	I would travel abroad if the climate in my destination country was cold.	D-6
	I would travel abroad if it is convenient to use the medical facilities (hospitals and pharmacies) in my destination country.	D-7

	I would travel abroad if my destination country has few international tourists (or if my destination country restricts the number of tourists allowed to enter per day).	D-8
	I would travel abroad if the leisure or sports (activities) available in my destination country was were managed in a sanitary way.	D-9
	I will definitely travel abroad if the circumstances allow me to do so, regardless of the country's condition.	D-10
Social atmosphere related to overseas travel (S)	I would travel abroad if social perception regarding overseas travel improves to a point better than it is currently.	S-1
	I would travel abroad if social perception regarding overseas travel recovers to the pre-COVID-19 level.	S-2
	If people around me are traveling abroad, I will also travel abroad.	S-3
	I would travel abroad if there was no fear regarding contracting (transmitting) COVID-19 due to overseas travel.	S-4
	I would travel abroad if the government did not restrict overseas travel.	S-5
	I would travel abroad if the World Health Organization (WHO) said it was okay to travel abroad.	S-6
	I will definitely travel abroad if the circumstances allow me to do so, regardless of the perceptions of the people around me.	S-7
Level of aircraft/airport management related to infectious diseases (A)	I would travel abroad by air if the airline seats remain distanced from each other (1 m or more).	A-1
	I would travel abroad by air if sufficient management is carried out regarding preventive measures, such as restricting the number of flights per day.	A-2
	I would travel abroad by air if the sanitary conditions (provision of hand sanitizer and other disinfection measures) within the aircraft improve.	A-3
	I would travel abroad again by air if aircraft were equipped with apparatuses to prevent transmission of disease through the air or via droplets, such as seat partitions, etc.	A-4
	I would travel abroad by air if all airport employees and cabin crew wore face masks.	A-5
	I would travel abroad by air if preventive measures were regularly carried out in all airport facilities.	A-6
	I would travel abroad by air if COVID-19 testing was conducted on all passengers upon departure or entry.	A-7
	I would travel abroad by air if direct flights were available for me to travel to my destination.	A-8
	Even if a layover is needed to arrive at my destination, I would travel abroad by air if I only have to stay inside the airport.	A-9
	I will definitely travel abroad if the circumstances allow me to do so, regardless of the aircraft/airport circumstances.	A-10
	I would travel abroad by air if I don't have to wear a face mask inside the aircraft (if I can breathe freely).	A-11
	I would travel abroad by air if a distance (1 m or more) is maintained between people for check-in, security check, and boarding.	A-12

Survey Results.

Table S2. Survey results for COVID-19-related factors (C).

	Number of Samples	All	Gender		Age Group				Aged 60 or Over
			Male	Female	Aged 20–29	Aged 30–39	Aged 40–49	Aged 50–59	
		840	434	406	133	136	162	191	218
C-1	Mean	3.6	3.7	3.6	3.9	3.7	3.8	3.6	3.5
	Statistical significance	-	t = 1.421		F = 4.345 **				
C-2	Mean	3.8	3.8	3.8	4.1	3.8	3.8	3.8	3.7
	Statistical significance	-	t = -0.601		F = 2.613 *				
C-3	Mean	3	3	3.1	3.1	3.4	3	2.8	3
	Statistical significance	-	t = -0.866		F = 4.720 ***				
C-4	Mean	2.4	2.4	2.3	2.5	2.8	2.3	2.1	2.3
	Statistical significance	-	t = 1.119		F = 6.686 ***				
C-5	Mean	2.7	2.7	2.6	2.7	2.9	2.6	2.6	2.6
	Statistical significance	-	t = 1.022		F = 1.962				
C-6	Mean	3.3	3.3	3.2	3.4	3.3	3.1	3.2	3.3
	Statistical significance	-	t = 0.525		F = 1.033				
C-7	Mean	3.4	3.4	3.4	3.7	3.6	3.3	3.3	3.3
	Statistical significance	-	t = -0.047		F = 3.487 **				
C-8	Mean	4.1	4.1	4.2	4.2	4.1	4	4.2	4.2
	Statistical significance	-	t = -0.803		F = 1.644				
C-9	Mean	3.1	3.1	3.1	3.2	3.3	2.9	3	3.2
	Statistical significance	-	t = 0.604		F = 1.804				
C-10	Mean	2.3	2.3	2.3	2.5	2.7	2.3	2.1	2.1
	Statistical significance	-	t = 0.200		F = 4.515 **				

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$ (two-tailed).

Table S3. Survey results for destination factors (Q).

Number of Samples		All	Gender		Age Group				
			Male	Female	Aged	Aged	Aged	Aged	Aged 60 or Over
					20–29	30–39	40–49	50–59	
		840	434	406	133	136	162	191	218
Q-1	Mean	2.2	2.3	2.2	2.6	2.4	2.3	2	2.1
	Statistical significance	-	t = 1.419		F = 6.875 ***				
Q-2	Mean	2.2	2.2	2.2	2.3	2.5	2.2	2.1	2.2
	Statistical significance	-	t = 0.542		F = 2.631 *				
Q-3	Mean	2.4	2.4	2.4	2.5	2.7	2.4	2.1	2.3
	Statistical significance	-	t = 0.078		F = 5.759 ***				
Q-4	Mean	3.6	3.6	3.6	3.7	3.7	3.5	3.6	3.6
	Statistical significance	-	t = 0.391		F = 0.435				
Q-5	Mean	2.2	2.2	2.3	2.4	2.5	2.3	2.1	2.1
	Statistical significance	-	t = -1.740		F = 3.458 **				

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$ (two-tailed).

Table S4. Survey results for destination factors (D).

Number of Samples		Gender			Age Group				Aged 60 or Over
		All	Male	Female	Aged 20–29	Aged 30–39	Aged 40–49	Aged 50–59	
		840	434	406	133	136	162	191	218
D-1	Mean	3.9	3.9	3.8	4.1	3.9	3.9	3.8	3.7
	Statistical significance	-	t = 0.184			F = 4.873 ***			
D-2	Mean	3.8	3.8	3.8	4.1	3.8	3.8	3.8	3.6
	Statistical significance	-	t = 0.042			F = 3.772 **			
D-3	Mean	3.8	3.8	3.8	4	3.9	3.9	3.8	3.6
	Statistical significance	-	t = -0.574			F = 3.386 **			
D-4	Mean	3.8	3.8	3.8	4.1	3.8	3.8	3.7	3.6
	Statistical significance	-	t = 0.192			F = 5.067 ***			
D-5	Mean	2.8	2.7	2.8	3.2	3	2.8	2.5	2.6
	Statistical significance	-	t = -0.726			F = 10.981 ***			
D-6	Mean	2.6	2.6	2.6	3.1	2.8	2.6	2.4	2.4
	Statistical significance	-	t = 0.687			F = 10.851 ***			
D-7	Mean	3.6	3.5	3.7	3.8	3.7	3.5	3.6	3.6
	Statistical significance	-	t = -2.255 *			F = 1.857			
D-8	Mean	3	3	3.1	3.5	3.1	3	2.8	2.9
	Statistical significance	-	t = -0.618			F = 7.55 ***			
D-9	Mean	3.4	3.4	3.4	3.9	3.6	3.4	3.1	3.2
	Statistical significance	-	t = 0.451			F = 11.59 ***			
D-10	Mean	2.5	2.6	2.4	2.9	2.8	2.5	2.3	2.2
	Statistical significance	-	t = 1.919			F = 9.223 ***			

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$ (two-tailed).

Table S5. Survey results for social atmosphere related to overseas travel (S).

Number of Samples		Gender			Age Group				Aged 60 or Over
		All	Male	Female	Aged 20–29	Aged 30–39	Aged 40–49	Aged 50–59	
		840	434	406	133	136	162	191	218
S-1	Mean	3.5	3.5	3.5	3.8	3.6	3.5	3.3	3.3
	Statistical significance	-	t = 0.46			F = 6.937 ***			
S-2	Mean	3.9	3.9	4	4	4	3.8	4	3.9
	Statistical significance	-	t = -1.479			F = 1.835			
S-3	Mean	3	3	3	3.3	3.1	3	3	2.8
	Statistical significance	-	t = 0.548			F = 2.805 *			
S-4	Mean	4.1	4	4.2	4.2	3.9	4.1	4.1	4.2
	Statistical significance	-	t = -1.913			F = 1.892			
S-5	Mean	3.2	3.1	3.3	3.5	3.2	3.1	3.1	3.1
	Statistical significance	-	t = -1.227			F = 2.675 *			
S-6	Mean	3.5	3.5	3.6	3.6	3.6	3.5	3.5	3.6
	Statistical significance	-	t = -1.186			F = 0.152			
S-7	Mean	2.4	2.4	2.4	2.6	2.5	2.4	2.3	2.2
	Statistical significance	-	t = 0.579			F = 2.668 *			

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$ (two-tailed).

Table S6. Survey results for level of aircraft/airport management related to infectious diseases (A).

Number of Samples		Gender			Age Group				Aged 60 or Over
		All	Male	Female	Aged 20–29	Aged 30–39	Aged 40–49	Aged 50–59	
		840	434	406	133	136	162	191	218
A-1	Mean	3	3	3	3.3	3.2	3.2	2.8	2.9
	Statistical significance	-	t = 0.736			F = 6.372 ***			
A-2	Mean	3.1	3.1	3	3.4	3.2	3.2	2.9	3
	Statistical significance	-	t = 1.106			F = 4.602 **			
A-3	Mean	3.1	3.1	3	3.3	3.2	3.2	2.8	3
	Statistical significance	-	t = 1.068			F = 4.124 **			
A-4	Mean	3.2	3.2	3.2	3.5	3.3	3.3	2.9	3.1
	Statistical significance	-	t = 0.773			F = 5.880 ***			
A-5	Mean	3	3	3	3.4	3.2	3.1	2.7	2.8
	Statistical significance	-	t = 0.674			F = 10.182 ***			
A-6	Mean	3.2	3.2	3.2	3.5	3.3	3.3	3	3.1
	Statistical significance	-	t = 0.115			F = 5.27 ***			
A-7	Mean	3.1	3.1	3.1	3.6	3.3	3.1	2.8	2.9
	Statistical significance	-	t = -0.112			F = 9.06 ***			
A-8	Mean	3.2	3.2	3.2	3.5	3.3	3.2	2.9	3.2
	Statistical significance	-	t = -0.529			F = 5.384 ***			
A-9	Mean	2.8	2.8	2.7	3	3	2.8	2.5	2.6
	Statistical significance	-	t = 1.594			F = 5.723 ***			
A-10	Mean	2.4	2.5	2.4	2.8	2.7	2.4	2.3	2.2
	Statistical significance	-	t = 1.587			F = 5.866 ***			
A-11	Mean	3.4	3.4	3.4	3.7	3.4	3.3	3.2	3.3
	Statistical significance	-	t = -0.126			F = 3.559 **			
A-12	Mean	2.9	2.9	2.9	3.4	3	3	2.6	2.8
	Statistical significance	-	t = -0.283			F = 10.283 ***			
A-13	Mean	2.9	3	2.9	3.5	3.1	3.1	2.6	2.7
	Statistical significance	-	t = 1.366			F = 12.02 ***			

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$ (two-tailed).**Table S7.** Survey results for respondent properties.

Respondent Properties		Number of Samples	Composition Ratio (%)
Total		840	100.0
Gender	Male	434	51.5
	Female	406	48.5
Age Group	Aged 20–29	133	15.5
	Aged 30–39	136	15.6
	Aged 40–49	162	19.4
	Aged 50–59	191	21.6
	Aged 60 or Over	218	28.0
Region	Seoul	158	19.5
	Busan	58	7.1
	Daegu	34	4.2
	Incheon	50	6.2
	Gwangju	24	2.9
	Daejeon	22	2.7
	Ulsan	15	1.8

Job	Gyeong-gi	196	24.1
	Gang-won	24	3.0
	Chung-buk	22	2.6
	Chung-nam	30	3.7
	Sejong	19	0.5
	Jeon-buk	33	4.1
	Jeon-nam	33	4.0
	Gyeong-buk	42	5.1
	Gyeong-nam	59	7.2
	Jeju	21	1.2
	Managerial Position	91	10.8
	Expert and associated worker	125	14.2
	Office worker	252	30.4
	Service personnel	98	11.5
	Salesperson	36	4.2
	Labor worker	31	3.8
	Standing army	3	0.4
	Housewife	117	14.3
	Student	23	2.7
	the other unemployed	44	5.2
	Et cetera	20	2.5

Model building results.

Note: Since 1 is not included in the range of correlation coefficients between all factors, it could be said that the validity of determination has been obtained.

Table S8. Verified the validity of determination using correlation coefficients and standard errors.

Category			Estimate	S.E.	S. E. ²	-	+
Level of COVID-19	<-->	Self-isolation period upon entry	0.764	0.030	0.060	0.704	0.824
Level of COVID-19	<-->	Circumstances of overseas destination	0.283	0.019	0.038	0.245	0.321
Level of COVID-19	<-->	Social atmosphere	0.729	0.028	0.056	0.673	0.785
Level of COVID-19	<-->	Level of aircraft/airport management	0.592	0.027	0.054	0.538	0.646
Self-isolation period upon entry	<-->	Circumstances of overseas destination	0.162	0.018	0.036	0.126	0.198
Self-isolation period upon entry	<-->	Social atmosphere	0.656	0.027	0.054	0.602	0.710
Self-isolation period upon entry	<-->	Level of aircraft/airport management	0.561	0.026	0.052	0.509	0.613
Circumstances of overseas destination	<-->	Social atmosphere	0.496	0.020	0.040	0.456	0.536
Circumstances of overseas destination	<-->	Level of aircraft/airport management	0.479	0.021	0.042	0.437	0.521
Social atmosphere	<-->	Level of aircraft/airport management	0.720	0.028	0.056	0.664	0.776

Table S9. Correspondence sample test (*t*-test) results between individual questions of two surveys.

Questionnaire Question		Average	Standard Deviation	Standard Error Average	95% Confidence Interval		t	df	Significance Level
					Lower Limit	Upper limit			
C-1 (1st)	C-1 (2nd)	0.4071	1.2726	0.0439	0.321	0.4933	9.272	839	0
C-2 (1st)	C-2 (2nd)	0.2679	1.2537	0.0433	0.183	0.3528	6.192	839	0
C-3 (1st)	C-3 (2nd)	-0.1857	1.4113	0.0487	-0.2813	-0.0901	-3.814	839	0
C-4 (1st)	C-4 (2nd)	-0.2917	1.3271	0.0458	-0.3815	-0.2018	-6.37	839	0
C-5 (1st)	C-5 (2nd)	-0.3952	1.3543	0.0467	-0.487	-0.3035	-8.458	839	0
C-6 (1st)	C-6 (2nd)	-0.4714	1.5421	0.0532	-0.5759	-0.367	-8.86	839	0
C-7 (1st)	C-7 (2nd)	-0.3071	1.6211	0.0559	-0.4169	-0.1974	-5.491	839	0
C-8 (1st)	C-8 (2nd)	-0.3119	1.3426	0.0463	-0.4028	-0.221	-6.733	839	0
C-9 (1st)	C-9 (2nd)	-0.225	1.4939	0.0515	-0.3262	-0.1238	-4.365	839	0
C-10 (1st)	C-10 (2nd)	-0.1369	1.453	0.0501	-0.2353	-0.0385	-2.731	839	0.006
Q-1 (1st)	Q-1 (2nd)	-0.0881	1.2598	0.0435	-0.1734	-0.0028	-2.027	839	0.043
Q-2 (1st)	Q-2 (2nd)	-0.1607	1.2035	0.0415	-0.2422	-0.0792	-3.87	839	0
Q-3 (1st)	Q-3 (2nd)	-0.2036	1.2705	0.0438	-0.2896	-0.1175	-4.644	839	0
Q-4 (1st)	Q-4 (2nd)	-0.175	1.4029	0.0484	-0.27	-0.08	-3.615	839	0
Q-5 (1st)	Q-5 (2nd)	-0.1155	1.4334	0.0495	-0.2125	-0.0184	-2.335	839	0.02
D-1 (1st)	D-1 (2nd)	-0.0976	1.1989	0.0414	-0.1788	-0.0164	-2.36	839	0.019
D-2 (1st)	D-2 (2nd)	-0.0464	1.269	0.0438	-0.1324	0.0395	-1.06	839	0.289
D-3 (1st)	D-3 (2nd)	-0.1107	1.3077	0.0451	-0.1993	-0.0222	-2.454	839	0.014
D-4 (1st)	D-4 (2nd)	-0.0929	1.3141	0.0453	-0.1818	-0.0039	-2.048	839	0.041
D-5 (1st)	D-5 (2nd)	-0.2595	1.2961	0.0447	-0.3473	-0.1717	-5.803	839	0
D-6 (1st)	D-6 (2nd)	-0.0369	1.3091	0.0452	-0.1256	0.0518	-0.817	839	0.414
D-7 (1st)	D-7 (2nd)	-0.0833	1.3083	0.0451	-0.1719	0.0053	-1.846	839	0.065
D-8 (1st)	D-8 (2nd)	-0.2	1.4518	0.0501	-0.2983	-0.1017	-3.993	839	0
D-9 (1st)	D-9 (2nd)	-0.1167	1.427	0.0492	-0.2133	-0.02	-2.369	839	0.018
D-10 (1st)	D-10 (2nd)	-0.1714	1.3995	0.0483	-0.2662	-0.0766	-3.55	839	0
S-1 (1st)	S-1 (2nd)	-0.0464	1.2634	0.0436	-0.132	0.0391	-1.065	839	0.287
S-2 (1st)	S-2 (2nd)	0.0167	1.2136	0.0419	-0.0655	0.0989	0.398	839	0.691
S-3 (1st)	S-3 (2nd)	-0.169	1.3835	0.0477	-0.2627	-0.0754	-3.541	839	0
S-4 (1st)	S-4 (2nd)	-0.1095	1.1491	0.0396	-0.1873	-0.0317	-2.762	839	0.006
S-5 (1st)	S-5 (2nd)	-0.2298	1.4162	0.0489	-0.3257	-0.1339	-4.702	839	0
S-6 (1st)	S-6 (2nd)	-0.35	1.3866	0.0478	-0.4439	-0.2561	-7.316	839	0
S-7 (1st)	S-7 (2nd)	-0.0798	1.3476	0.0465	-0.171	0.0115	-1.715	839	0.087
A-1 (1st)	A-1 (2nd)	-0.0607	1.3869	0.0479	-0.1546	0.0332	-1.269	839	0.205
A-2 (1st)	A-2 (2nd)	0.0036	1.423	0.0491	-0.0928	0.0999	0.073	839	0.942
A-3 (1st)	A-3 (2nd)	-0.0512	1.4363	0.0496	-0.1485	0.0461	-1.033	839	0.302
A-4 (1st)	A-4 (2nd)	-0.0071	1.4825	0.0512	-0.1075	0.0933	-0.14	839	0.889
A-5 (1st)	A-5 (2nd)	-0.0619	1.4154	0.0488	-0.1578	0.0339	-1.268	839	0.205
A-6 (1st)	A-6 (2nd)	-0.044	1.4604	0.0504	-0.1429	0.0549	-0.874	839	0.382
A-7 (1st)	A-7 (2nd)	-0.0202	1.4544	0.0502	-0.1187	0.0783	-0.403	839	0.687
A-8 (1st)	A-8 (2nd)	-0.006	1.4545	0.0502	-0.1045	0.0926	-0.119	839	0.906
A-9 (1st)	A-9 (2nd)	-0.0893	1.4689	0.0507	-0.1888	0.0102	-1.762	839	0.078
A-10 (1st)	A-10 (2nd)	-0.0833	1.4443	0.0498	-0.1811	0.0145	-1.672	839	0.095
A-11 (1st)	A-11 (2nd)	-0.3798	1.5661	0.054	-0.4858	-0.2737	-7.028	839	0
A-12 (1st)	A-12 (2nd)	-0.0179	1.3976	0.0482	-0.1125	0.0768	-0.37	839	0.711
A-13 (1st)	A-13 (2nd)	-0.1286	1.4277	0.0493	-0.2253	-0.0319	-2.61	839	0.009

Table S10. Results of multi-group analysis between questionnaire surveys (final model).

Factor	1st Survey		2nd Survey	
	Estimate (Standardized Coefficient)	C.R.	Estimate (Standardized Coefficient)	C.R.
COVID-19-related factor (C) --> Factor related to self-isolation upon entry and departure (Q)	0.776	19.158 ***	0.747	14.577 ***
lated factor (C) --> Destination-related factor (D)	0.362	6.033 ***	0.408	5.853 ***
COVID-19-related factor (C) --> Social atmosphere related to overseas travel (S)	0.413	7.712 ***	0.434	6.909 ***

COVID-19-related factor (C) --> Level of aircraft/airport management related to infectious diseases (A)	0.100	2.020 **	0.063	0.997 (0.319)
Factor related to self-isolation upon entry and departure (Q) --> Destination-related factor (D)	-0.128	-2.183 **	-0.134	-2.012 **
Factor related to self-isolation upon entry and departure (Q) --> Social atmosphere related to overseas travel (S)	0.271	5.435 ***	0.290	5.094 ***
Factor related to self-isolation upon entry and departure (Q) --> Level of aircraft/airport management related to infectious diseases (A)	0.116	2.598 **	0.252	4.594 ***
Destination-related factor (D) --> Social atmosphere related to overseas travel (S)	0.331	10.968 ***	0.339	8.921 ***
Destination-related factor (D) --> Level of aircraft/airport management related to infectious diseases (A)	0.240	7.984 ***	0.145	3.593 ***
Social atmosphere related to overseas travel (S) --> Level of aircraft/airport management related to infectious diseases (A)	0.467	8.646 ***	0.422	5.349 ***

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.001$ (two-tailed)