

1. Survey validation

items	Numbers of questions in each item	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Domain II	7	0.811	0.813
Domain III	8	0.728	0.731
Total items	15	0.819	0.818

1.1.Domain II: the impact of COVID-19 on the environment

Questions	Mean	SD	alpha
Q7	3.333	0.992	0.787
Q8	3.346	1.024	0.789
Q9	3.125	1.042	0.785
Q10	3.466	1.235	0.773
Q11	3.803	1.03	0.806
Q12	3.264	1.376	0.778
Q13	2.856	1.421	0.778
Reliability alpha	0.811		
Standardized alpha	0.813		

1.2.Domain III: the impact of COVID-19 on pollution increase

Questions	Mean	SD	alpha
Q14	3.744	1.102	0.728
Q15	3.193	0.953	0.692
Q16	3.058	1.222	0.68
Q17	3.006	0.993	0.678
Q18	3.405	1.089	0.702
Q19	3.524	0.988	0.7
Q20	3.438	0.951	0.7
Q21	3.035	1.09	0.722
Reliability alpha	0.728		
Standardized alpha	0.731		

1.3. Total survey

Questions	Mean	SD	alpha
Q7	3.333	0.992	0.806
Q8	3.346	1.024	0.805
Q9	3.125	1.042	0.805
Q10	3.466	1.235	0.802
Q11	3.803	1.03	0.813
Q12	3.264	1.376	0.803
Q13	2.856	1.421	0.798
Q14	3.744	1.102	0.815
Q15	3.193	0.953	0.809
Q16	3.058	1.222	0.804
Q17	3.006	0.993	0.807
Q18	3.405	1.089	0.817
Q19	3.524	0.988	0.817
Q20	3.438	0.951	0.817
Q21	3.035	1.09	0.814
Reliability alpha	0.819		
Standardized alpha	0.818		

2. Sample Size calculation

To calculate the sample size for the pilot study, the following equation was used.

$$n_0 = \frac{z^2 \times p(1-p)}{e^2}$$

- n_0 - Sample size, which was estimated
- z^2 - The selected critical value of the desired level of confidence or risk
- p - The estimated proportion of an attribute that is present in the population or maximum variability of the population
- e - The desired level of precision or margin of error

In our case, since the population number is unknown.

- n_0 - ?
- z^2 - 95% confidence level (The value of $(1-\alpha)$ in Standard Normal Distribution z-table, which is 1.96 for 95%)
- p - 50% variability of the population (which is maximum)
- e - 5% margin of error

Put the value in the given formula-

$$n_0 = \frac{(1.96)^2 \times 0.5(1 - 0.5)}{(0.05)^2} = 384$$