## Appendix. Selection Process of Online Vape Shops in Our Sample

Based on a Google search of "best online vaping stores 2020 " on January 26th, 2021, we selected five popular online vape shops from Google search result and Reddit. The criteria was, after Google search, in the top result, we picked the first three stores without physical addresses; in Reddit, according to a 2020 discussion (the rest few in Google result were in 2019 or earlier), we picked two stores without physical addresses (in Reddit discussion, the comments on top are the ones with the most upvotes).

From February to May in 2021, we scraped data from the five online vape shops in the list, which were Direct Vapor (directvapor.com/, from Google search result), Element Vape (elementvape.com/, from Google search result), MyVpro (myvpro.com/, from Google search result), Vape Society Supplies (vapesocietysupplies.com/, from Reddit discussion), and EJuice.Deals (ejuice.deals/, from Reddit discussion). Element Vape appeared among both top search result on Google, and user recommendations on Reddit.

Table A1. Frequency and Distribution Table of Volume Per Bottle (E-liquid Products in Our Sample of Five Stores)

| Volume per bottle (unit: ml) | Freq. | Percent | Cum. |
| :--- | :---: | :---: | :---: |
| 1.4 | 2 | 0.01 | 0.01 |
| 3 | 3 | 0.02 | 0.03 |
| 10 | 32 | 0.22 | 0.26 |
| 15 | 85 | 0.59 | 0.85 |
| 20 | 21 | 0.15 | 0.99 |
| 30 | 3,565 | 24.75 | 25.74 |
| 50 | 49 | 0.34 | 26.08 |
| 60 | 5,522 | 38.33 | 64.41 |
| 75 | 126 | 0.87 | 65.29 |
| 90 | 16 | 0.11 | 65.40 |
| 100 | 3,885 | 26.97 | 92.36 |
| 120 | 1,069 | 7.42 | 99.78 |
| 150 | 2 | 0.01 | 99.80 |
| 180 | 12 | 0.08 | 99.88 |
| 200 | 12 | 0.08 | 99.97 |
| 300 | 5 | 0.03 | 100.00 |
| Total | 14,406 | 100 |  |
| Average | Mean. | S.D. |  |
|  | 67.86 | 30.61 |  |

Notes: a) In this table, we present frequency counts of volume per bottle, for e-liquids with non-missing actual price and nonmissing product total volume. b) E-liquid product total volume always equals volume per bottle times pack size (i.e., \# of bottles in one pack), except for six e-liquid products in Store 5: each pack contains a 120 ml bottle and a 60 ml bottle. Thus, there are six more observations in this table as we present volume per bottle, compared to Table 1. c) We highlight volume per bottle with frequency counts greater than 1,000 .

## Distribution of volume per bottle, by store



Figure A1. Distribution of Volume Per Bottle, by Store (Box Plots)

Distribution of e-liquid volume per bottle, whole sample

(1)

Distribution of e-liquid volume per bottle, store 2

(3)

Distribution of e-liquid volume per bottle, store 4

(5)

Distribution of e-liquid volume per bottle, store 1

(2)

Distribution of e-liquid volume per bottle, store 3

(4)

Distribution of e-liquid volume per bottle, store 5

(6)

Figure A2. Distribution of Volume Per Bottle, by Store (Kernel Density Estimates)


Figure A3. Distribution of Original Price, by Store (Box Plots)

Before-discount price distribution of e-liquids, whole sample

(1)

Before-discount price distribution of e-liquids, store 2

(3)

Before-discount price distribution of e-liquids, store 4

(5)

Before-discount price distribution of e-liquids, store 1

(2)

Before-discount price distribution of e-liquids, store 3

(4)

Before-discount price distribution of e-liquids, store 5

(6)

Figure A4. Distribution of Original Price, by Store (Kernel Density Estimates)

