Answering sheet Asignment Marketing Models

Student information

Name: Name
Student Number: Student number

Details Data

Number of the dataset used for solving the exercise: 21

Details Coding

Which computer language/program did you use?: R
What was the version number of the software that you used?: 4.1.2

Estimation Results:
Fill in the next table using your estimation output:

parameter	ML estimate	standard error
Heinz 28 ounces	0	N.A.
Heinz 32 ounces	-0.9271121568900	0.09102674974300
Heinz 40 ounces	-1.0487658032648	0.10293484982775
Hunts 32 ounces	-2.4030267945207	0.11307023842785
price	-141.43116478569	6.87432515426472
display	0.76232662375570	0.11592824443143
feature	0.88507884248380	0.13303957469060

Maximum Log Likelihood value: -1819.3938785106

McFadden R^2: 0.19210056082880

Partial Effects:
Fill in the table with average partial effects of prices where element (j,k) denotes the marginal change in the choice probability of brand j due to a change in the price of brand k.

	average partial effects of price			
brand	Heinz 28 ounces	Heinz 32 ounces	Heinz 40 ounces	Hunts 32 ounces
Heinz 28 ounces	-22.145801174437	15.5951834603347	2.50527246418171	4.0453452499215
Heinz 32 ounces	15.5951834603347	-27.081911801927	4.4046530943739	7.08207524721865
Heinz 40 ounces	2.50527246418171	4.4046530943739	-8.0073732804654	1.09744772190979
Hunts 32 ounces	4.0453452499215	7.08207524721865	1.09744772190979	-12.224868219049

Effects of Hunts display promotion:
Fill in the table with the average effects of a display promotion for Hunts 32 ounces (with no feature promotion for Hunts and no feature nor display promotion for any other brand-sizes) on the probabilities of all 4 brand-sizes relative to a scenario in which there are no feature nor display promotions for any brand-sizes (including Hunts).

brand	Heinz 28 ounces	Heinz 32 ounces	Heinz 40 ounces	Hunts 32 ounces
Effect	-0.0292731317862	-0.0510162349737	-0.0077377408499	0.08802710760995

Hausman Test:
Test the assumption of the independence of irrelevant alternatives by implementing a Hausman test comparing the unrestricted model with a restricted model that does not include the Heinz 40 ounces observations.

Test Statistic	12.2446250124329
P-value	0.03158532278309