Television Food Advertising, Ethnic Marketing and Food Choices among Hispanic Children

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ABSTRACT

We investigate how English and Spanish-language food and beverage advertising on TV affects consumers' food choices, and whether Hispanic and non-Hispanic consumers respond differently to TV advertising. The study employ a household panel data and a brand-level advertising exposure data in the candy category. We find that an increase in brand-level English or Spanish-advertising increases probability of choosing a brand over other brands, and an increase in advertising in either language, holding everything else constant, increases total candy consumption. We also find that an increase in accumulated past advertising in English but not in Spanish results in an increase in probability of choosing one brand. We do not find that Hispanic and non-Hispanic consumers to respond to advertising differently.

1. Motivations

➤ Childhood obesity has become a grim public health challenge.

➤ Many believe TV food and beverage advertising to children is responsible, but evidence is far from definitive.

➤ Obesity prevalence rates diverge among children from different racial and ethnic background and particularly high among the fast-growing Hispanic population.

Research Questions:

➤ What is the role of ethnic advertising of food and beverage on Hispanic consumers' food choices?

➤ Do Hispanic consumers respond differently to TV food and beverage advertising?

2. Data

Two proprietary data sets from AC Nielson.

Data period: Feb 2006 to Dec 2008

➤ Household level panel data on purchases in the candy category prices, quantity, promotion, product characteristics at Universal Product Code (UPC) level for each transaction a panel of households make in the candy category.

➤ Weekly brand-level advertising exposure information during the same period in 16 DMAs across U.S.
   Unique advertising exposure data measured in Gross Rating Point (GRP) for audience in five age group: 2-5, 6-11, 12-17, 18-24 and 25+

3. Methodology

We estimate a structural demand model for candy products which allows consumers from various racial backgrounds to respond to advertising differently. The demand model also allows current and past advertising in both English and Spanish to influence the choices of the Hispanic consumers.

In particular, we specify a conditional logit model where households choose among 17 top candy products and an outside good. Prices, advertising, and goodwill which is formed by accumulated past advertising all play a role in determining a household's choice. Also, the household characteristics such as household income, household size, and race all enter the demand specification.

4. Results

Coefficient Estimates Averaged across 17 Candy Brands

Price	-0.3989***
	(0.1200)
Goodwill in English	0.8110***
	(0.0632)
Goodwill in Spanish	0.0488
	(0.1182)
Advertising in English	0.1145***
	(0.0013)
Advertising in Spanish	0.0362***
	(0.0022)

Where Goodwill is defined as accumulated advertising exposure in the past 52 weeks, and advertising is defined as current week advertising

Subset of Advertising Elasticity: English vs. Spanish

English advertising elasticity				
	1	2	3	4	5
1	23.65%				
2	-0.13%	0.43%			
3	-4.01%	-0.05%	12.11%		
4	-1.58%	-0.02%	-0.65%	5.17%	
5	-3.79%	-0.05%	-1.56%	-0.62%	11.53%

Spanish advertising elasticity				
	1	2	3	4	5
1	7.48%				
2	-0.04%	0.14%			
3	-1.27%	-0.02%	3.83%		
4	-0.50%	-0.01%	-0.21%	1.63%	
5	-1.20%	-0.02%	-0.49%	-0.19%	3.65%

Where brands are

1. M&M
2. M&M peanut
3. Hershey kisses peanut butter
4. Reese peanut butter cup
5. Snickers

5. Conclusion and Future work

We aim to investigate whether Hispanic and non-Hispanic consumers respond differently to TV food and beverage advertising and the relative effectiveness of TV food and beverage advertising in English and Spanish language. Our preliminary results show that Spanish language advertising is effective in influencing consumers' brand choices, although to a lesser degree. We will estimate a full mixed logit model which allows for more flexible substitution patterns and accommodate more household characteristics, especially age and presence of children.