

ADVERTISING AND COOPERATIVE MARKETING: DISCUSSION

by

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Advertising and Cooperative Marketing: Discussion

The papers in this session either deal with some aspect of advertising or some aspect of the dairy industry. The papers by Vande Kamp and Kaiser and Xiao, Kinnican, and Kaiser have the most in common and I will discuss those two papers together. The other two papers by Binkley and Clendenning and Wolf and Hamm are singular in both subject and method, so I will discuss them separately.

Advertising of Milk and Non-Alcoholic Beverages

The paper by Vande Kamp and Kaiser (VKK) is concerned with identifying and estimating irreversible fluid milk advertising in New York City. They generalize Wolfram's approach to modeling irreversibility by allowing for short-term irreversibility in consumer response to advertising. As far as it goes, this approach is innovative. However, this approach requires that one estimate a large number of parameters. In addition, although the results indicate that advertising-demand response for fluid milk in New York City is asymmetric in the short run, only tractable results were obtained by imposing some rather ad hoc restrictions on the parameters, i.e., $\alpha_0^I = \alpha_1^I$, $\alpha_2^I = \alpha_3^I$, $\alpha_0^D = \alpha_1^D$, and $\alpha_2^D = \alpha_3^D$.

Given the demand specification employed (with the associated parametric restrictions), the analysis appears to be quite well done. However, the magnitudes of the advertising elasticities – even in the short run – seem quite large in relation to the price elasticities of demand. One reason for the relatively large estimates could be related to the definition of fluid milk advertising. It is unclear from the paper what the coverage of the fluid milk advertising goodwill measure is. Does it include both generic and brand

advertising? If not, and brand advertising is excluded, then consumer response to milk advertising would likely be overstated. I suspect, though, that even if brand advertising is excluded that this is not a major problem. But what could be more problematic is the fact that the model likely does not account for spill-over effects from other cities and states. For example, if TV cable subscribers pick up stations from outside the New York City area which advertise milk and the advertising is effective, then consumer response to advertising will be overstated if the advertising goodwill variable does not include advertising expenditures by businesses outside New York City. The other reason advertising response could be overstated relates to the issue of demand interrelationships between milk and other beverages. This is the issue addressed by the second paper by Xiao, Kinnucan, and Kaiser (XKK), to which I now turn.

XKK estimate demand interrelationships between the main non-alcoholic beverages: milk, juices, soft drinks, and coffee & tea. Both interrelationships among prices and advertising are taken into account in a Rotterdam Model approach. The approach, based on the two-stage budgeting procedure, is quite rigorous and exploits the various theoretical restrictions of consumer behavior both within and across equations. Significant findings of the paper are that advertising affects market shares but not total demand for non-alcoholic beverages, estimated elasticities affirm the importance of spillovers from one commodity to another (with many of the cross effects larger than own effects), and significant trend effects indicate that structural change is important.

With regard to own-advertising effects of individual beverages, it is interesting to note that milk advertising is insignificant but is small relative to its own-price change. This result is consistent with Brester and Schroeder, who found demand response to

advertising for individual meats to be much smaller when meat demand was estimated as a system of demand functions. Moreover, the small advertising effects for milk contradicts previous findings in the literature. Sensitivity of advertising effects to model specification (i.e., single equation versus a system of equations) suggests that analysts should be more cautious in drawing inferences about the efficacy of advertising and that more research should be done taking into account advertising interdependencies. Evidence of structural change in demand for non-alcoholic beverages also underscores the difficulties in estimating advertising effects.

Although this paper has significant implications for estimating advertising effects, it is not without limitations. First, some of the estimated cross-advertising effects are larger than own-advertising effects, which is counter-intuitive. One needs to be cautious in using the two-stage budgeting procedure. A less restrictive approach would be to estimate a complete demand system consisting of the four beverages, other foods, and non-food aggregate commodities along the lines of Brester and Schroeder. Second, significant trend effects in the conditional demand functions could simply indicate that the weak separability restriction is too restrictive, and not that there are structural shifts not accounted for by prices, income, and advertising.

Competition Between Branded and Unbranded Advertising

The paper by Binkley and Clendinning (BC) takes advantage of a detailed cross-sectional data set (SAMI) in evaluating the relative role of prices and advertising in consumers' choices. BC's hypothesis, based on information theory, is that consumers will make choices based on limited price information. The theoretical basis for their approach is that information is not free so consumers will gather the information only if

its (expected) value exceeds its (expected) cost. Based on this theory, we would expect people less likely to gather information where commodities are low-valued and when consumers have a high opportunity cost of time. The empirical application to baking mixes and table salt is generally consistent with theory. Proxies for value of time, value of market information, and ability to obtain correct price information were found to be significant and have the correct signs in most instances.

Two interesting results, that have implications for businesses and future research, are that poverty percentage has a negative effect on share of the lower priced alternative, and that consumer's choices are consistent with employing the "larger is cheaper" rule when purchasing cake mixes. BC suggest poor budgeting and/or non-English speaking customers as the reason for the anomalous negative relationships between poverty and purchase of lower priced products. Another possible explanation is that the poor are often concentrated in inner cities where food prices are high and where choices among brands may be more limited.

While the authors do not underscore this point, it is clear from the results that prices matter quite a lot in purchase decisions. So whether or not consumers spend a lot of time in comparing prices, they certainly respond (in the expected direction) to changes in relative prices. Overall, I found the empirical analysis to be quite sound and innovative.

Milk Marketing Cooperatives

The paper by Wolf and Hamm (WH) addresses the interesting question: What would happen to the milk market if cooperatives replaced government intervention? In the absence of milk marketing orders, WH conclude that cooperatives will be unlikely to

maintain membership and balancing services because of their dependence on dairy policies today.

A major presupposition of the paper is that the dairy industry is in need of protection because milk has characteristics that differentiate it from other commodities (i.e., milk is perishable and the nature of milk production puts independent farmers at a disadvantage in milk marketing). Yet, there are other commodities (e.g., fresh fruits and vegetables) with similar characteristics that do not operate with government protection.

WH also argue that milk producers benefit from the current milk marketing structure in a number of ways, including orderly marketing that minimizes price fluctuations. But how do we know that government intervention leads to more orderly marketing if we have not observed what it would be like without government intervention? And what about the well-being of consumers? While government regulation may alleviate health problems, consumers face considerably higher prices as a result of marketing orders.

I also have concern about WH's analysis of the free-rider problem. WH maintain that without marketing orders that farmers have an incentive to defect from the cooperative because independent processors can pay a slightly higher price than a cooperative that balances with manufactured products. If cooperatives would not be able to compete with independent processors, why should they be subsidized to stay in business? Also, without marketing orders, would there really be a surplus problem so that cooperatives with balancing services would be required?

While the question posed by WH is an interesting one, their analysis raises more questions than it answers. Additional research is needed to evaluate the claims made

about the benefits of orders and cooperatives, as well as to what the incentives to market participates likely would be in the absence of marketing orders.