ECONOMIC EFFECTS of Generic Promotion Programs for Agricultural Exports

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TEN

Promotion Evaluation With Limited Information

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The theory of establishing an effective promotion budget is straight forward: Make the budget large enough so that one more dollar spent will earn just one more dollar in return. It does not work out that way in practice, however. Too many other factors -- including many that cannot be measured -- are at work influencing sales returns. Managers need to compromise and find ideas that give an *indication* of how effectively promotional dollars are being used. With this in mind, I will review some results of field trips to the Pacific Rim during the summer of 1988 and spring of 1989 that suggest some plausible ways to monitor an advertising and promotion program.

Evaluations of advertising and promotion programs for extensively traded commodities show that sales revenue changes exceed program expenditure changes by ratios of 4:1 to 58:1.

The ideas presented were developed from information and opinions gathered in Japan, Taiwan, Hong Kong, Malaysia, and Singapore. They are based on interviews with approximately 28 firms involved in the importation and sale of fresh and/or processed fruit from California. Although the evidence is anecdotal, the conclusions make sense.

This paper focuses on promotion in foreign markets where data availability is frequently different from that in domestic markets. I do not attempt to generalize from foreign experience to domestic markets, although clearly some of the underlying principles of evaluation apply in both markets.

PAST WORK ON EVALUATING ADVERTISING AND PROMOTION

The link between promotion[1] and sales is complex. Promotion

[1] For simplicity, this paper adopts the conventional idea that promotion includes advertising.

affects consumer awareness, which may lead to changed attitudes and beliefs resulting in changed consumer behavior (consumption patterns, for example) that may entail different purchases that cause changed sales for the firm undertaking the promotion. Consequently, measuring promotion effectiveness based on increases in consumer awareness or differences in beliefs can be risky. As Forker noted, there has been little success in determining a correlation between awareness and behavior. In cases with limited data, there may be few alternatives to the use of such proxies to evaluate promotion.

Economists prefer to get directly to the point if data permits. They do this by estimating sales revenues as a function of prices, income, promotion, and other market influencing factors. Evaluations of advertising and promotion programs for extensively traded commodities such as orange juice concentrate, soybeans, cotton, wheat, potatoes, and dairy products show that sales revenue changes exceed program expenditure changes by ratios of 4:1 to 58:1 (Lee, Forker). Most of these evaluative efforts used statistical techniques to measure the various factors economic theory identifies as influencing sales volumes or revenues, including expenditures for promotion. Time series or cross-sectional data were used depending upon which provided the best analytical basis.

Data are often not available to measure promotion results adequately using time series, cross-sectional, or comparable market techniques (Forker and Liu). This situation exists for many fruits and vegetables (exceptions may be bananas, apples, oranges, grapes, and tomatoes) and for other commodities that are not traded in sufficient volume to warrant the public collection of market information. It is unfortunate because groups representing such commodities are significant users of promotional programs. U.S. fruit and vegetable producers and shippers operated 132 generic promotion programs in 1986 and spent, through their marketing orders or other associations, $82.5 million on research and promotion in domestic and foreign markets. Federal and state governments added to this amount through various tax-supported programs (Blisard and Blaylock).

While data may be insufficient for measuring the link between promotional expenditures and sales revenues, they may allow measurement of other important relationships. As McEwen observed, sales revenues may be an inappropriate index of what advertising is achieving or should achieve; therefore, attention might be better focused on consumer changes. This need often arises when the impacts of promotion occur over a long period of time and it is necessary to gage whether or not the promotion is taking hold with consumers even if changed sales have not yet occurred. Other relationships that might be measured include changes in consumer awareness as detected through surveys, changes in beliefs and behavior as revealed through interviews or panels, and changes in the number and character of wholesale or retail outlets handling the commodity.

LESSONS CONCERNING PROMOTION

The evaluation of promotion programs for fresh and processed fruits, as well as most other food products, is hampered by inadequate information. This was evident in my study of markets for fresh and canned fruit in selected Pacific Rim countries.[2] In those markets, promotion of fresh stone fruits and canned peaches, pears and fruit cocktail centered on in-store campaigns complemented by some media advertising for canned fruits. None of the supermarkets that I interviewed in Taiwan, Hong Kong, Kuala Lumpur, or Singapore were able to estimate the changes in their profits resulting from promotion of canned fruits. Most of them could describe the changes in sales occurring during promotion periods but could not differentiate between the effect of lower promotion period prices and the effect of the promotion itself. Several respondents concluded that promotion of standard products (as opposed to new products) merely redistributed the time period of sales over the year.

Sales revenues may be an inappropriate index of what advertising is achieving or should achieve. Attention might be better focused on consumer changes. This need often arises when the impacts of promotion occur over a long period of time.

This problem exists in the distribution of fresh fruit also (Moulton). Hawkers and vendors are the predominant sellers of fresh fruit in the markets that I studied (except Japan). They set prices in accord with current market conditions and the need to move fruit before it spoils. They rarely use price changes in connection with promotion activities or media advertising and report little carryover from supermarket promotion efforts. They have no system for determining the impact on their sales of promotional materials or media advertising.

Supermarket sellers of fresh fruit believed that promotions were successful in increasing the turnover of promoted fruits. They were able to obtain some idea of how much the promotion helped by comparing sales in stores using promotion with sales in stores not using promotion. However, they were not able to estimate the value of the promotion (i.e., how much they would be willing to pay for the promotion if the supplier did not finance it).

The character and quality of public sector data on fresh and processed fruit and vegetable movement varies between markets.

[2] The studies were undertaken for the California Tree Fruit Agreement, the California Cling Peach Advisory Board, and the California Pear Growers Association. The analysis of Pacific Rim markets for canned fruits is one part of a comprehensive study of global competitiveness. The fresh fruit study concerns Pacific Rim market opportunities for fresh plums, peaches, and nectarines. With the exception of the report on Taiwan listed in the references, the remaining studies are in progress.

Generally, the data is aggregated for canned fruits so that separating individual products is difficult. As a result, the data applies only to import movement. There is no reporting of wholesale or retail prices or shipments. Data on many fresh fruits are also aggregated. Wholesale prices may be reported for some fruits but they are not connected to sales. Retail price reports tend to be highly aggregated.

This deficiency of information discourages, if not prohibits, the estimation of economic models for the purpose of providing immediate and longer-term impact of promotion on sales. Detailed price and movement data are needed to determine the overall relationship between sales, price, substitute product prices, and other factors influencing market results.

The ability to develop comparisons between markets to test promotional programs is hindered by the substantial differences in consumer preferences, trade practices, and market structure. For example, green plums are favored in Hong Kong but almost dismissed in Taiwan; nectarines are popular in Japan but virtually ignored elsewhere; distribution is tightly controlled in Japan and Malaysia but wide open in Hong Kong; and supermarkets are growing in power in Singapore and Hong Kong but are less important in Taiwan. For these reasons, promotion that works in one market may not work at all in another. Consequently, the learning process is restricted to sometimes rather narrow markets.

GUIDELINES FOR THE PROMOTIONAL PLAN

The basis for a good promotional plan is a sound understanding of the market and the factors that affect its behavior. Economic theory can help in identifying and evaluating these factors and in assessing how they might affect results in the future. Such an evaluation, as long as it is rigorous, becomes essential in planning.

The Targeted Export Assistance Program and similar promotion subsidies may have stimulated promotions that were not carefully planned. After all, it is easier to risk someone else's money than your own. This has made government agencies more insistent on credible evaluations of subsidized promotions. This, in turn, reinforces the importance of having a sound plan that incorporates explicit provisions for evaluation. The following guidelines may help in the planning process.

- The promotion plan should allow for the searching out or creation of data that will enable estimation of the economic relationships needed for decisionmaking. This may include preliminary estimation of price and income effects so that they can be distinguished from promotion effects. Examples are the estimation of income and price elasticities (sensitivity of quantity demanded to changes in income and price) and price flexibility (sensitivity of market price to the quantity

supplied). The filtering out of measurable effects on sales reduces the range of influence that might be attributed to promotion and other non-measured factors.

- The difficulty of evaluation makes it necessary to set aside an adequate budget to provide some useful analysis for decision-makers. The amount set aside for evaluation should vary depending on market size, the amount of information already available in the market, and the ease with which responses can be measured. For smaller markets or relatively new products or markets, evaluation costs could be 20 percent or higher of the promotional budget. For larger markets and better established products, the evaluation budget would more likely be 5 to 10 percent of the promotion budget.

- The promotional program should be tailor-made for each market and each plan should include measurable objectives to be achieved during the promotional campaign.

- Since promotion seems to work over a long period of time, proxies for sales results ought to be identified that will permit a quicker feedback on the effectiveness of the promotion program. These proxies are likely to be changes in consumer attitudes and behavior as measured by surveys of consumers and retailers. Other indicators are the number of new outlets for the product and the size and nature of product displays.

AN EVALUATION SCHEME

An organizational scheme to facilitate planning and evaluation is presented in Table 1. It calls for estimates of what is likely to happen to key market factors during the planning period and a comparison of these estimates with actual results. The listed factors are indicative of the types that should be included even though they may vary depending on the product, market structure, and other circumstances.

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The first section of Table 1 deals with what is expected to happen to prices, volumes, market regulations, and other general market characteristics. The second section lists the factors that the organization wants to change through promotion and the

TABLE 1. Guideline for Promotion Planning and Evaluation

1. What Has Happened in the Market? (Compare what happened with what was expected)	Own Firm Exp.	Own Firm Actual	Competitors Exp.	Competitors Actual
1.1 Change in product quality				
1.2 Change in price, substitute products				
1.3 Change in product prices				
1.4 Change in volume shipped				
1.5 Change in market share				
1.6 Change in policy: quotas, tariffs, etc.				
1.7 Change in promotion expenditures				
1.8 Change in marketing channels				

2. What Has Happened to Promotion Factors? (Compare firm's achievements and goals)	Goal	Achieved
2.1 Number of new outlets		
2.2 Number, size, and location of supermarket displays		
2.3 Change in consumer awareness and/or behavior		
2.4 Change in sales revenues by line item		
2.5 Number and volume of new products adopted		
2.6 Measurable change in price elasticity of demand		

Source: Moulton, K.S., Some Ideas on Promotion Evaluation, Department of Agricultural and Resource Economics, University of California, Berkeley, January 20, 1989.

amount of change targeted. The logic to the scheme is that the factors in the first section establish the environment within which the promotional goals must be determined and the promotional program later evaluated.

The scheme includes estimates of general conditions likely to affect the organization, its competitors, and the entire market. It allows a comparison of actual to projected results or established goals. This, in turn, permits the organization to evaluate its planning process and the effectiveness of its promotion program.

The entries into the planning and evaluation table may be numerical or qualitative, but in either case they should be carefully thought out and as precise as practicable. For example, in considering changes in product quality (line 1.1 in Table 1), California processors might anticipate no change in the quality of their product during the promotion year, but they might anticipate an improvement of the quality of peaches imported from Australia. This should be noted as accurately as possible (e.g., the likely coverage of grade changes, the quantities affected) because it will change the competitive environment within which California peaches are promoted. The estimates of product prices, line 1.3, might be straightforward: $18 per case for own firm and $17 for competitors. Some responses, such as those concerning changes in policy or marketing channels, may apply equally to all firms and therefore need not be segregated between "own firm" (column 1) and "competitor firms or industries" (column 2).

Markets for many agricultural exports do not generate adequate data for evaluating promotion programs. However, these data deficiencies can be offset partially by establishing a budget for obtaining data that would otherwise be unavailable and by selecting measurable targets against which to evaluate promotion.

The entries in section 2 dealing with changes in factors affected by promotion should be measurable. They are the goals against which achievement is to be measured, and they apply to the "own firm." Achievements of competitors in these areas should be recorded also since they will influence the interpretation of "own firm" results.

SUMMARY

Markets for many agricultural exports do not generate adequate data for the evaluation of promotion programs. However, these data deficiencies can be offset partially by establishing a budget for obtaining data that would otherwise be unavailable and by selecting measurable targets against which to evaluate promotion. The methodology will not be as sophisticated as that reported in academic journals but will be useful for management decisions in an uncertain market place.

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