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# Consumer Response to Perceived Value and Generic Advertising

Matthew J. Salois and Amber Reilly

This study examines the relationship between generic advertising and perceived value for 100 percent orange juice using data from a survey on consumption, perceived value, advertising awareness, and other key measures. We investigate the relationships between consumption and perceived value and between generic advertising and perceived value and identify features of generic advertising of orange juice that have the greatest influence on consumers. Our analysis indicates that perceived value is strongly associated with increased consumption and is influenced by generic advertising. Generic advertising is most effective when consumers view the content of the ads as genuine and relevant.

**Key Words:** generic advertising, consumption, marketing, perceived value

*As marketers, we should be committed to the proposition that the creation of customer value must be the reason for the firm's existence and certainly for its success. (Slater 1997)*

The marketing literature has long stressed the critical role of perceived value in consumer choice; academic and marketing researchers focus on the importance of "value creation" with respect to consumption and purchase intent. While definitions of perceived value vary widely, the need for its creation and maintenance is rarely disputed when it comes to the successful marketing of goods and services (Slater 1997, Zeithaml 1988, Sheth, Newman, and Gross 1991). A number of unidimensional and multidimensional approaches to defining perceived value have been proffered over the years, but it is often simply defined as the quality obtained for the price paid (Zeithaml 1988). Understanding how perceived value affects consumption and how value can be enhanced through advertising is essential to creating and enacting a successful marketing plan.

There is a complicated relationship between marketing efforts (advertising) and value creation (perceived value) in generating consumer demand for and consumption of a good or service. The standard role of advertising (at least within the economics literature) has often been as a direct driver of purchase and consumption decisions. However, that premise is at odds with the extant literature on marketing. Several studies have noted that for advertising (generic or brand) that has a direct impact on consumption one would expect a proportionate increase in sales for every additional dollar spent (*ceteris paribus*), which generally is not the case (Dodds, Monroe, and Grewal 1991).

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Rather, the marketing literature points to a more nuanced role for advertising, one that is mitigated by consumers' perceptions of value. Within this context, the role of advertising is to build a product's perceived value, which has a direct effect on consumer intent.

Of particular interest is the effect that generic advertising has on perceived value. Unfortunately, few studies have been able to use a consumer-level data set robust enough to fully explore that interaction (Kinnucan and Venkateswaran 1990). Generic advertising differs from brand advertising in that it seeks to increase consumption of all items in a product category rather than addressing a single brand with a unilateral focus (Brown and Lee 1997). Several studies have investigated the effect of generic advertising on consumption but not the role played by perceived value. Capps, Bressler, and Williams (2004) found that brand advertising did not increase total product-category sales; instead, it promoted brand-switching among existing customers. Generic advertising, on the other hand, has been shown to increase demand and consumption (Rickard et al. 2011, Zheng and Kaiser 2008). Thus, we address two questions: (i) to what degree does generic advertising impact value perception and, in turn, enhance consumption and (ii) how can generic advertising be better leveraged to maximize the creation of perceived value?

This study incorporates a rich consumer-level data set gathered by the Florida Department of Citrus (FDOC) and its marketing research partner, Issues & Answers Network, Inc. The FDOC conducts a monthly advertising tracking study through a survey of U.S. consumers that includes measures of their behavior and attitudes regarding 100 percent orange juice, their awareness of generic (by FDOC) and brand advertising, and their perceived value for 100 percent orange juice.

Our analysis indicates that perceived value is strongly associated with increased consumption frequency and is influenced by consumers' awareness of generic advertising. Thus, generic promotions should involve strategies that enhance the perceived value of the product to consumers. Moreover, the strategic focus of generic promotion efforts must extend beyond general awareness to how key messages in the ads are communicated. Several characteristics of the ads—their relevance to consumers, whether consumers view the claims as believable, and the degree of product remembrance they generate—are important features that affect both perceived value and consumption frequency.

### Conceptual Model

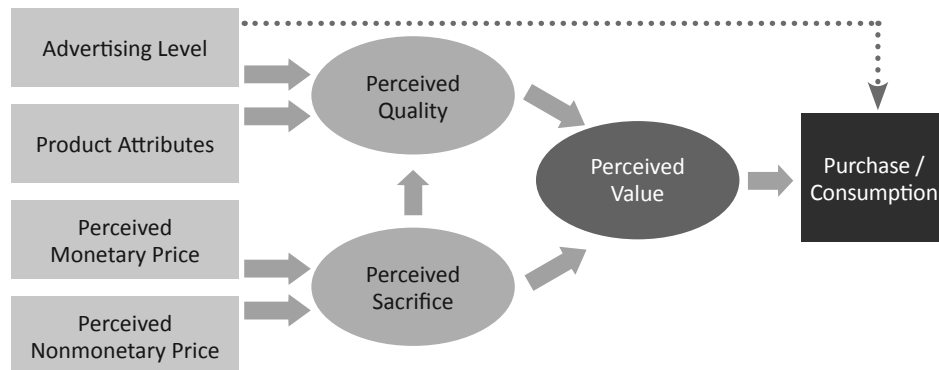
The concept of value varies widely, particularly in the marketing literature (see Sánchez-Fernández and Iniesta-Bonilo (2007) for a review of the concept in marketing). In economics, the conceptual basis of value is provided by utility theory; value is defined by the difference between the utility derived by the consumer from the product and the disutility associated with the sacrifice made or price paid to obtain the product (i.e., utility maximization). More generally, Lancaster (1966) extended the model from maximizing utility from a single product to maximizing utility associated with the bundle of characteristics or attributes offered by the product. This model has been updated and extended in the marketing literature (Thaler 1985, Tellis and Gaeth 1990), which generalizes the concept of perceived value by recognizing that utility maximization represents a “cognitive tradeoff between perceptions of quality

and sacrifice” (Dodds, Monroe, and Grewal 1991, p. 308). While a product’s selling price is partly represented by its actual monetary cost, there are other costs associated with acquiring it, including time, effort, and the expenses associated with searching for it.

The process by which consumers decide whether to purchase and consume a product has been addressed with varying degrees of complexity in the marketing literature. The factors that contribute to purchase and consumption decisions and how those factors influence each other are the primary basis for consumers’ differentiation of products. The decision-making process often begins with objective extrinsic and intrinsic cues (e.g., the monetary price, the brand name, and physical product attributes) to which consumers respond. Zeithaml (1988) presented a fairly complex series of interactions in which all paths led to a consumer’s creation of perceived quality. Contributing to perceived quality are the objective price of the good and the consumer’s subsequent perception about that price, various intrinsic product attributes (flavor, color, texture, etc.) and abstract dimensions associated with those attributes, and the product’s reputation. Zeithaml notes that a product’s reputation is cultivated through both brand name and the amount of advertising of the product. For Zeithaml, perceived value comes later and the presence of a direct link to perceived quality and the factors associated with that quality is not as clear.

Dodds, Monroe, and Grewal (1991) suggested that product evaluation begins with store name and objective price and that perceptions of the store and price lead to perceptions of quality and sacrifice (what consumers must give up to obtain the product—time, money, effort, etc.). These two perceptions collectively influence perceived value, which Dodds, Monroe, and Grewal defined as “the link between the cognitive attitudes of perceived quality and perceived monetary sacrifice and the behavioral intention to buy” (1991, p. 316). In their model and in many others that followed, perceived value is a critical component of purchase intent and is often the last stop on the road before making the decision to purchase or not.

What the available marketing literature does not promote is a direct link between product advertising and consumption. Ideally, an increase in ad spending would result in a proportionate increase in consumption, but that is not the case. Instead, the effects of advertising follow an indirect path influenced by various consumer perceptions. A successful marketer therefore uses advertising to enhance the perceived quality and value of the product, which drive consumption. Our theoretical model, which is based on the decision-making process described in Dodds, Monroe, and Grewal (1991), is summarized in Figure 1. Perceived value directly influences consumption and purchase intent through a cognitive tradeoff between perceived quality and perceived cost. Perceived cost or sacrifice is influenced by individual perceptions related to the product’s monetary cost (price) and nonmonetary costs (e.g., search and transaction costs). Perceived quality can be influenced by perceived sacrifice through intrinsic quality cues that are associated with the product and impacted by price. For example, a higher-priced orange juice may be perceived by the consumer as a higher-quality product (e.g., orange juice that is premium-priced not-from-concentrate versus lower-priced frozen concentrate). Prior research (Zeithaml 1988) has demonstrated that consumers who are not familiar with major brands of a product rely more on price as a quality cue. Perceived value also is influenced by consumers’ perceptions



**Figure 1. Theoretical Model**

Note: Adapted from Dodds, Monroe, and Grewal (1991).

regarding various product attributes such as taste, appearance, and packaging and by core advertising and other marketing activities.

An important consideration implied by the model shown in Figure 1 is that consumers formulate value perceptions independently rather than from purchase transactions (Chang and Wildt 1994). Value perceptions are an important gauge used by consumers in making purchases, but perceived value and purchase behavior are distinct constructs. Logically, then, if the perceived value of a given product (or service) is low (because the product is viewed as being of poor quality and/or requiring a large sacrifice), the intent to purchase will be small. Purchase intent should have a positive association with perceived value and perceived value should play an instrumental role in influencing purchase behavior (Chang and Wildt 1994).

## Literature Review

A number of studies have examined the effect of FDOC's generic advertising efforts on consumption of orange juice. Early studies, which included Ward and Davis (1978), Ward and Tilley (1980), and Lee and Brown (1985), tended to use aggregate annual or monthly time-series data on total FDOC advertising expenditures that were matched to retail volumes or consumer expenditures on orange juice. More recent studies, which include Brown and Lee (1997, 1999), Capps, Bressler, and Williams (2004), and Thomas and Cantor (2009), have typically used Nielsen point-of-sale scanner data aggregated at a market level and used purchases as a proxy for consumption.

In general, the studies have found that the level of expenditure on generic advertising has had a direct impact on sales of orange juice. A key difference in our study is use of individual-level survey data rather than aggregate-level data regarding the consumption and advertising variables. We do not measure actual consumption volume; instead, we obtain individuals' stated frequency of consumption. And instead of actual advertising effort (expenditure level), we assess individuals' stated awareness and recollection of advertising. Few studies of generic advertising have used this kind of micro-level survey data. Thompson and Eiler (1975) and Kinnucan and Venkateswaran (1990) used

survey techniques that measured awareness of generic advertising and found that such advertising succeeded in increasing demand at the category level (the studies did not include a measure of perceived value).

Kaiser and Liu (1998) found that brand advertising was not as effective as generic advertising in increasing demand for fluid milk. Brown and Lee (1997) and Capps, Bressler, and Williams (2004) found statistically insignificant impacts from brand advertising on retail sales of orange juice, which supports the results of Lee, Fairchild, and Behr (1988), who found that brand advertising of orange juice was associated with increased or maintained market share while generic FDOC advertising was associated with an increase in total category sales. On the other hand, Brester and Schroeder (1995) in a study of generic meat advertising found a statistically significant elasticity for brand-level advertising and no significant elasticity for generic advertising.

Only a few studies have directly addressed the impact of consumers' perceived value on consumption. Chang and Wildt (1994) conducted a survey-based experiment to collect data on individual-level assessments of perceived value and on purchase intent for two hypothetical goods, apartments and personal computers. Their analysis, which used linear regression, generated positive and statistically significant coefficient estimates of perceived value for both goods, which pointed to a direct relationship between perceived value and purchase intent. The study also separately examined the impact of perceived quality and perceived price on perceived value. In line with their theoretical model, perceived price negatively impacted perceived value while perceived quality had a positive impact.

### Data and Empirical Model

The data used in our study are from FDOC's monthly advertising-tracking study, a survey designed to measure consumers' recollection of and responsiveness to FDOC's advertising programs. The survey is managed by an independent global marketing research firm, Issues & Answers Network, Inc., and is administered via the internet. The survey, which takes approximately twenty minutes to complete, is conducted nationally with adult consumers who are members of an internet research panel. The survey incorporates age and gender quotas that are based on U.S. census figures to ensure appropriate representation of adults in the United States. For our analysis, Issues & Answers Network conducted 1,515 interviews between February 1 and December 31, 2012. Respondents had to be at least eighteen years of age, have an annual household income of at least \$25,000, and have either primary or shared responsibility for household grocery shopping. The survey covered beverage purchase habits, consumption habits, perceptions of orange juice and grapefruit juice, overall exposure to advertising and media promotions for orange juice, and recollection of and perceptions about generic advertising. The survey also collected information on various sociodemographic and household characteristics.

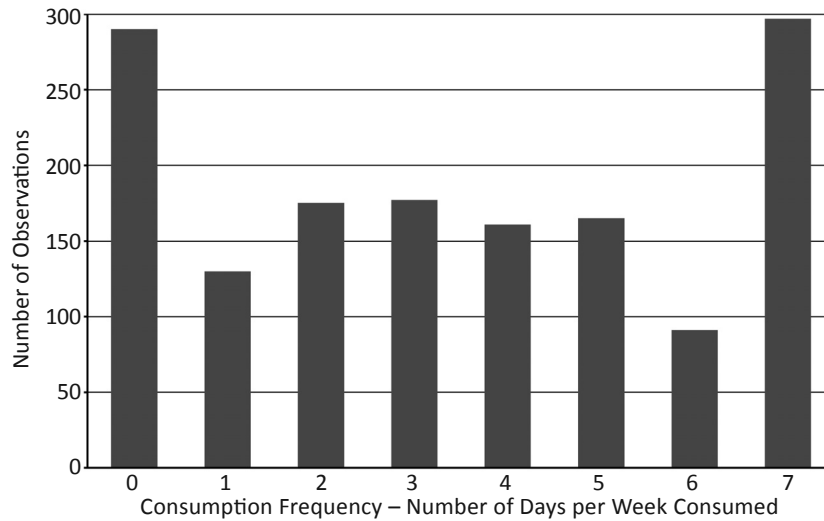
The primary variables in the model are (i) stated consumption frequency (*OJCON*), (ii) perceived value (*PERVA*), (iii) awareness of FDOC generic advertising (*GENAD*), (iv) awareness of brand advertising (*BRNAD*), (v) relevance of FDOC's ad message/slogan (*RELAD*), (vi) believability of the FDOC ad (*BELAD*), (vii) the strength of recall or degree of FDOC ad remembrance (*REMAD*), and (viii) a matrix of demographic variables (**DEMOG**) for indicators

of gender, marital status, race, education, age, and income. Table 1 summarizes the full set of variables and provides descriptive statistics.

Regarding consumption (*OJCON*), the survey asked respondents about the number of days per week, on average, they consumed 100 percent orange juice. The consumption variable thus ranged from 0 to 7 and 0 indicated that the respondent either never drank orange juice or drank it less than once a week. The average frequency of consumption among respondents was about 3.4 days per week. The frequency distribution of responses to *OJCON* is shown in Figure 2. Spikes in responses are observed at zero days per week (non-weekly consumers) and seven days per week (daily consumers) with a relatively even distribution of responses in between. For perceived value (*PERVA*), the survey asked respondents to select the beverage in a list (100 percent orange juice, apple juice, cranberry juice, and grape juice) that they felt provided the best value for the price. Alternatively, they could state that all of the beverage options were equal, none of them provided a good value for the price, or they did not know. *PERVA* was a dichotomous indicator that took a value of 1 if the respondent chose 100 percent orange juice and 0 otherwise.

**Table 1. Descriptive Statistics**

Variable	Mean	Standard Deviation
Consumption frequency	3.435	2.518
Perceived value	0.505	0.500
FDOC ad awareness	0.543	0.498
Brand ad awareness	0.496	0.500
FDOC ad relevance	0.839	0.367
FDOC ad believability	0.493	0.500
FDOC ad remembrance	0.889	0.317
Male	0.486	0.500
Married	0.638	0.481
White	0.829	0.376
Black	0.058	0.233
Asian	0.062	0.242
Latin	0.038	0.190
Other race/ethnicity	0.013	0.112
High school or less	0.365	0.482
College	0.459	0.498
Graduate school and greater	0.176	0.381
Age 18–29	0.192	0.394
Age 30–39	0.198	0.399
Age 40–49	0.189	0.392
Age 50–59	0.176	0.381
Age 60–69	0.135	0.342
Age 70 and over	0.109	0.312
Income \$25,000–\$34,000	0.121	0.327
Income \$35,000–\$49,000	0.179	0.383
Income \$50,000–\$74,000	0.280	0.449
Income \$75,000–99,000	0.192	0.394
Income \$100,000–\$149,000	0.164	0.370
Income \$150,000 or more	0.065	0.246



**Figure 2. Distribution of Consumption Frequency Variable**

After completing several sections on beverage perceptions, purchase behavior, and general advertising awareness and media exposure, respondents were shown three advertisements in random order to assess their advertising awareness. Two (*GENAD*) were FDOC (generic) commercials that were rotated in and out of the survey to match the current television airing schedule; the third was an advertisement for a well-known orange juice brand (*BRNAD*). Respondents were shown each ad and asked if they recalled ever seeing it on television. If they did, they were taken through a series of follow-up questions to uncover the details of their recollection of the ad and their perceptions of it. We aggregated the responses regarding the two FDOC ads to generate an overall assessment of generic advertising (*GENAD*). *GENAD* and *BRNAD* were dichotomous indicators that took a value of 1 if the respondent recalled seeing an ad and zero otherwise. Mean values for ad awareness showed that, on average, respondents were slightly more aware of generic FDOC ads than of the brand ad.

The survey collected additional data on specific features of the generic FDOC advertising—how relevant the ad messages were to respondents, whether they perceived the information as believable, and the extent to which they later remembered that the ad was for orange juice. The variable representing the relevance of the ads' messages, *RELAD*, was a dichotomous indicator that took a value of 1 when the response to "Thinking about your current lifestyle, is the idea that 'Orange Juice can help you take on your day' relevant to you?" was "yes" and a value of 0 otherwise. *BELAD* represented the perceived believability of the information presented and was a dichotomous indicator that took a value of 1 when the response to "Thinking about what the ad is saying about 100 percent Orange Juice helping you take on the day, how believable do you feel it is?" was "very believable" or "somewhat believable" and 0 when the response was "not at all believable" or "do not know."

The last portion of the survey asked about ad remembrance (*REMAD*). Participants were asked to respond to the following: "There are some commercials that people remember but never know which product they are

for. Which one of these phrases applies best to this commercial?" The response options were (i) "You couldn't help but remember it was for orange juice," (ii) "It is pretty good at making you remember it is for orange juice," (iii) "It is just okay at making you remember it is for orange juice," (iv) "It could have been for any juice," and (v) "It could have been for almost anything." *REMAD* was defined as a dichotomous indicator that took a value of 1 when a participant chose (i) or (ii) and a value of 0 otherwise.

To investigate the impact of perceived value on consumption, we estimated a regression model:

$$(1) \quad OJCON = f(PERVAL, GENAD, BRNAD, \mathbf{DEMOG}) + \varepsilon_1.$$

This framework also tested whether advertising (generic and brand) had a direct effect on consumption. To determine whether perceived value is influenced by awareness of generic and/or brand advertising, we estimated a second regression model:

$$(2) \quad PERVAL = f(GENAD, BRNAD, \mathbf{DEMOG}) + \varepsilon_2.$$

$\varepsilon_1$  and  $\varepsilon_2$  represent stochastic error terms. Given the nature of the perceived-value variable, a censored regression model (e.g., Tobit) was appropriate for estimating the parameters in equation 1 while a probit regression was used to estimate the parameters in equation 2.

Two additional regression models addressed the question of how generic advertising can be leveraged to maximize creation of perceived value and consumption frequency:

$$(3) \quad OJCON = f(PERVAL, RELAD, BELAD, REMAD, \mathbf{DEMOG}) + \varepsilon_3.$$

$$(4) \quad PERVAL = f(RELAD, BELAD, REMAD, \mathbf{DEMOG}) + \varepsilon_4.$$

The framework in equations 3 and 4 tested the key features of the generic FDOC ads (relevance, believability, and remembrance) and assessed their impacts on perceived value. These features were assessed only for individuals who stated that they were already aware of the generic FDOC ad so the awareness variables were not included in these models.

## Results and Discussion

Table 2 summarizes the results of the regression on advertising awareness for the consumption frequency (equation 1) and perceived value (equation 2) models at a brand and category (generic) level. In the consumption frequency model (column 1), the coefficient estimate for perceived value is statistically significant and suggests a positive relationship between value and frequency of consumption. In particular, the marginal effect of the coefficient estimate of perceived value is 0.946 (see Table 4). Thus, respondents whose perceived value for 100 percent orange juice is greater consume orange juice, on average, about one day more often during the week. The estimated coefficients on awareness of generic and brand advertising are not statistically significant, indicating that there is no direct relationship between consumption frequency and advertising awareness at a brand or category level. In general, the demographic variables

were not statistically significant; the only exceptions were race and education. Minorities and more highly educated individuals consumed orange juice more frequently. In the perceived value model, which examines advertising awareness (column 2 in Table 2), the coefficient estimate on brand advertising awareness is not statistically significant but generic advertising awareness has a significant

**Table 2. Advertising Awareness Regression Results**

Variable	Model 1 Consumption Frequency	Model 2 Perceived Value
Constant	1.831*** (0.554)	-0.422 (0.216)
Perceived value	1.162*** (0.221)	—
FDOC ad awareness	0.128 (0.227)	0.312*** (0.088)
Brand ad awareness	0.328 (0.226)	0.076 (0.088)
Male	0.163 (0.219)	0.182** (0.085)
Married	0.189 (0.250)	0.139 (0.097)
White	-0.779*** (0.301)	-0.022 (0.118)
College	0.633** (0.253)	0.130 (0.099)
Graduate school and greater	0.622*** (0.338)	0.017 (0.132)
Age 18–29	0.010 (0.349)	0.148 (0.136)
Age 30–39	0.188 (0.354)	0.256* (0.138)
Age 40–49	-0.209 (0.347)	-0.010 (0.134)
Age 50–59	0.057 (0.339)	-0.020 (0.132)
Income \$25,000–\$34,000	-0.492 (0.431)	0.093 (0.167)
Income \$35,000–\$49,000	0.153 (0.361)	0.188 (0.140)
Income \$50,000–\$74,000	0.304 (0.316)	0.027 (0.124)
Income \$75,000–\$99,000	0.549 (0.342)	-0.116 (0.134)
Sigma	3.160 (0.090)	—
Log-likelihood	-1,999.641	-617.037
Number of observations	914	920

Notes: Standard errors are reported within parentheses. \*\*\* Indicates two-tailed significance at the 0.99 level. \*\* Indicates two-tailed significance at the 0.95 level. \* Indicates two-tailed significance at the 0.90 level.

and positive association with perceived value. In particular, the marginal effect of generic advertising awareness is 0.123 (see Table 4). Thus, respondents who are aware of the generic ad are 12 percent more likely than those who are not aware of the generic ad to choose 100 percent orange juice as the beverage with the most value. This finding is consistent with Gao and Lee (1993), who found that recollection of advertising had a direct association with a positive perception of orange juice. Our results suggest that advertising awareness has an indirect relationship with consumption intent, one that is mediated by perceived value. That is, greater advertising awareness is associated with greater perceived value, which in turn is associated with greater consumption frequency.

Intuitively, the results support our conceptual model. The fact that the coefficient on brand advertising awareness is not statistically significant is congruent with much of the literature on generic versus brand advertising. In general, while generic advertising increases overall demand for a product category (i.e., orange juice or beef), brand advertising tends only to shift market shares between competing brands (Brown and Lee 1997, Kaiser and Liu 1998, Capps, Bressler, and Williams 2004). Similarly, generic advertising drives perceived value for the category while brand advertising does not. Brand advertising may result in varying degrees of value perception between brands.

We next estimated regression models to examine the relationship between characteristics or features of the generic ad and consumption frequency and perceived value. As outlined in the econometric model, the survey measured ad relevance, believability, and remembrance. The concept of remembrance is a measure of recall. In this study, remembrance refers to participants' ability to remember that the ad was for orange juice. Believability is also a relatively straightforward concept and depends on the ad's realistic portrayal of information. For consumers, believability tends to relate not just to the practical nature of the ad but also to how genuine or truthful it is perceived to be.

Relevance is a more nuanced concept than remembrance or believability and has been studied extensively in the literature on marketing, both in terms of characteristics that make an ad personally relevant to an individual and how ad relevance can influence consumer responses (Smith and Yang 2004, Smith et al. 2007). The extent to which an ad is relevant to a consumer depends on its ability to convey or stimulate a sense of use, value, or meaning. While an ad's relevance is primarily judged on the basis of informational attributes of the brand or product being promoted, it is also influenced by certain execution elements, such as background music and voiceovers.

Table 3 summarizes the results of the regression on advertising features for the consumption frequency (equation 3) and perceived value (equation 4) models. In the consumption frequency model (column 1), the coefficient estimate on perceived value is still positive and statistically significant but is nearly half the magnitude of the estimate in model 1 (column 1 in Table 1). This result underscores the relative importance of ad features such as relevance over simple broad-based awareness. The marginal effect of the coefficient estimate (see Table 4) suggests that greater perceived value results in an additional 0.6 days of consumption frequency. All three features of the generic ad (relevance, believability, and remembrance) are positive and statistically significant. In terms of marginal effects of those features, relevance generated an average additional 0.5 days, believability about 0.8 days, and remembrance 0.6 days of consumption frequency. The result for remembrance is especially

interesting. In the consumption model that assessed ad awareness, both brand and generic advertising were statistically insignificant. Our results show that ad believability had the largest impact, followed by ad-product remembrance and

**Table 3. Advertising Feature Regression Results**

Variable	Model 3 Consumption Frequency	Model 4 Perceived Value
Constant	0.386 (0.607)	-0.669** (0.271)
Perceived value	0.718*** (0.213)	—
FDOC ad relevance	0.615** (0.317)	0.320** (0.138)
FDOC ad believability	0.926*** (0.223)	0.340*** (0.098)
FDOC ad remembrance	0.689** (0.345)	0.094 (0.150)
Male	0.493** (0.210)	0.197** (0.094)
Married	0.464** (0.240)	0.254** (0.106)
White	-0.342 (0.272)	-0.089 (0.120)
College	0.555** (0.241)	-0.053 (0.107)
Graduate school and greater	0.777** (0.331)	-0.115 (0.148)
Age 18-29	0.048 (0.350)	0.047 (0.155)
Age 30-39	0.098 (0.341)	0.307** (0.157)
Age 40-49	-0.052 (0.332)	-0.003 (0.149)
Age 50-59	0.049 (0.346)	-0.065 (0.155)
Income \$25,000-\$34,000	-0.011 (0.404)	0.087 (0.176)
Income \$35,000-\$49,000	0.265 (0.353)	0.175 (0.155)
Income \$50,000-\$74,000	0.445 (0.305)	0.078 (0.136)
Income \$75,000-\$99,000	0.285 (0.329)	0.043 (0.147)
Sigma	2.778 (0.082)	—
Log-likelihood	-1,675.087	-513.331
Number of observations	763	781

Notes: Standard errors are reported within parentheses. \*\*\* Indicates two-tailed significance at the 0.99 level. \*\* Indicates two-tailed significance at the 0.95 level. \* Indicates two-tailed significance at the 0.90 level.

**Table 4. Computed Marginal Effects**

Variable	Model 1 Consumption Frequency	Model 2 Perceived Value	Model 3 Consumption Frequency	Model 4 Perceived Value
Perceived value	0.946*** (0.179)	—	0.632*** (0.187)	—
FDOC ad awareness	0.104 (0.185)	0.123*** (0.035)	—	—
Brand ad awareness	0.267 (0.184)	0.030 (0.035)	—	—
FDOC ad relevance	—	—	0.541** (0.279)	0.127** (0.055)
FDOC ad believability	—	—	0.814*** (0.196)	0.134*** (0.038)
FDOC ad remembrance	—	—	0.606** (0.303)	0.037 (0.060)

Notes: Standard errors are reported within parentheses. \*\*\* Indicates two-tailed significance at the 0.99 level. \*\* Indicates two-tailed significance at the 0.95 level. \* Indicates two-tailed significance at the 0.90 level.

then ad relevance. In the perceived value model, ad relevance and believability have roughly the same impact while remembrance is not statistically significant.

Taken together, our results suggest that general awareness of an ad is not sufficient to enhance consumption; advertisements must generate a strong recollection of the product promoted. Fundamentally, this result comes from the definition of the variables in the context of the conceptual model. The variable for generic ad awareness measures broad knowledge of or familiarity with the ad as a whole. The variable for ad remembrance is a more precise measure of whether the consumer remembers that the ad is for orange juice. This difference is important. Broad awareness of an ad can be accomplished simply by media saturation while awareness of the content of the ad requires a more refined strategy and design. This result may seem intuitive, but the majority of studies that have investigated the impact of generic advertising on consumption or purchase intent have not made this distinction. One exception is Thompson and Eiler (1975); in that analysis of fluid milk advertising, the likelihood of milk consumption was greatest for individuals who both recognized the milk promotion and identified it with milk. In our perceived value model (column 2 in Table 3), the only statistically significant coefficient estimates were for ad relevance and believability. In terms of the marginal effects (Table 4), respondents who found the ad relevant were about 13 percent more likely than those who did not to have a high perceived value for orange juice. Respondents who found the generic ad believable also were about 13 percent more likely to have a high perceived value for orange juice.

Overall, our results emphasize the importance of enhancing the perceived value of the product as a way of increasing consumption. Moreover, a marketing strategy must extend beyond creating general awareness to consider how the key messages in the ad are communicated to consumers—whether the messages are relevant, believable, and memorable. For example, communicating and building relevance in an advertisement involves creating a meaningful link to

the consumer. Smith and Yang (2004) viewed relevance as a stimulus property whereby the consumer views some particular aspect or trait of the ad itself as being important or meaningful. Normally, relevance is usually thought of within the context of the product being advertised, but it can also be generated by certain features of the ad itself. For example, relevance can be achieved by enhancing certain stimulating properties of the ad (e.g., background music that is likely to appeal to the generation of consumers targeted) or through meaningful links involving the product (e.g., showing the product being used in settings that are familiar to targeted consumers).

## Conclusion

The results of this study demonstrate the importance of consumers' perceived value for a product because of its strong association with consumption frequency. We also find that perceived value is enhanced by exposure to generic advertising but not by exposure to brand advertising. This result supports prior studies that found that brand advertising can enhance a brand's market share (by shifting demand among brands) but does not increase consumption within a product category (Kaiser and Liu 1998, Brown and Lee 1997, 1999, Capps, Bressler, and Williams 2004).

We find that generic advertising programs may be more effective at increasing consumption if they are designed to enhance perceived value. In addition, a general awareness of generic advertising promotion by consumers is not sufficient. Several conceptual qualities—the relevancy, believability, and memorability of the messages conveyed—are critical to building perceived value and therefore to increasing consumption.

In particular, our study points to the benefit of revising the way generic advertising approaches are chosen. Typically, FDOC and its advertising partner conduct extensive focus group testing prior to producing and airing an ad. At that stage, consumers usually are shown story boards for several ads that involve different concepts to identify the advertisement approach that is most persuasive. The results of our study suggest that greater emphasis should be placed on the advertisements that are most effective at communicating relevant and believable messages to focus group participants when selecting ads for production.

## References

- Brester, G.W., and T.C. Schroeder. 1995. "The Impacts of Brand and Generic Advertising on Meat Demand." *American Journal of Agricultural Economics* 77(4): 969–979.
- Brown, M.G., and J.Y. Lee. 1997. "Incorporating Generic and Brand Advertising Effects in the Rotterdam Demand System." *International Journal of Advertising* 16(3): 211–220.
- . 1999. "Health and Nutrition Advertising Impacts on the Demand for Orange Juice in Fifty Metropolitan Regions." *Journal of Food Product Marketing* 5(3): 31–47.
- Capps, J.R.O., D.A. Bressler, and G.W. Williams. 2004. "Evaluating the Economic Impacts Associated with Advertising Effects of the Florida Department of Citrus." Prepared for the Advertising Review Committee Association with the Florida Department of Citrus and Florida Citrus Mutual. Forecasting and Business Analytics, LLC, College Station, TX.
- Chang, T.Z., and A.R. Wildt. 1994. "Price, Product Information, and Purchase Intent: An Empirical Study." *Journal of the Academy of Marketing Science* 22(1): 16–27.
- Dodds, W.B., K.B. Monroe, and D. Grewal. 1991. "Effects of Price, Brand, and Store Information on Buyers' Product Evaluations." *Journal of Marketing Research* 28(3): 307–319.

- Gao, X.M., and J.Y. Lee. 1993. "An Application of a Multiple Cause Variable Model for Consumer Perception of Orange Juice." *Applied Economics* 25(2): 207–212.
- Kaiser, H.M., and D.J. Liu. 1998. "The Effectiveness of Generic versus Brand Advertising: The Case of U.S. Dairy Promotion." *Review of Agricultural Economics* 20(1): 69–79.
- Kinnucan, H.W., and M. Venkateswaran. 1990. "Effects of Generic Advertising on Perceptions and Behavior: The Case of the Catfish." *Southern Journal of Agricultural Economics* 22(2): 137–151.
- Lancaster, K.J. 1966. "A New Approach to Consumer Theory." *Journal of Political Economy* 74(2): 132–157.
- Lee, J.Y., and M.G. Brown. 1985. "Coupon Redemption and the Demand for Frozen Concentrated Orange Juice: A Switching Regression Analysis." *American Journal of Agricultural Economics* 67(3): 647–653.
- Lee, J.Y., G.F. Fairchild, and R.M. Behr. 1988. "Commodity and Brand Advertising in the U.S. Orange Juice Market." *Agribusiness* 4(6): 579–589.
- Rickard, B.J., J. Liaukonyte, H.M. Kaiser, and T.J. Richards. 2011. "Consumer Response to Commodity-specific and Broad-based Promotion Programs for Fruits and Vegetables." *American Journal of Agricultural Economics* 93(5): 1312–1327.
- Sánchez-Fernández, R., and M.A. Iniesta-Bonilo. 2007. "The Concept of Perceived Value: A Systematic Review of the Research." *Marketing Theory* 7(4): 427–451.
- Sheth, J.N., B.I. Newman, and B.L. Gross. 1991. "Why We Buy What We Buy: A Theory of Consumption Value." *Journal of Business Research* 22(2): 159–170.
- Slater, S.F. 1997. "Developing a Customer Value-based Theory of the Firm." *Journal of the Academy of Marketing Science* 25(2): 162–167.
- Smith, R.E., and X. Yang. 2004. "Toward a General Theory of Creativity in Advertising: Examining the Role of Divergence." *Marketing Theory* 4(1/2): 31–58.
- Smith, R.E., X. Yang, L.M. Buchholz, and W.K. Darley. 2007. "Modeling the Determinants and Effects of Creativity in Advertising." *Marketing Science* 26(6): 819–833.
- Tellis, G.J., and G.J. Gaeth. 1990. "Best Value, Price-seeking, and Price Aversion: The Impact of Information and Learning on Consumer Choices." *Journal of Marketing* 54(2): 34–45.
- Thaler, R. 1985. "Mental Accounting and Consumer Choice." *Marketing Science* 4(3): 39–60.
- Thomas, A.M., and N. Cantor. 2009. "Financial Benefits of Florida Generic Orange Juice Marketing." *Agricultural and Resource Economics Review* 38(3): 431–444.
- Thompson, S.R., and D.A. Eiler. 1975. "A Multivariate Probit Analysis of Advertising Awareness on Milk Use." *Canadian Journal of Agricultural Economics* 23(1): 65–73.
- Ward, R.W., and J.E. Davis. 1978. "A Pooled Cross-section Time Series Model of Coupon Promotions." *American Journal of Agricultural Economics* 60(3): 393–401.
- Ward, R.W., and D.S. Tilley. 1980. "Time Varying Parameters with Random Components: The Orange Juice Industry." *Southern Journal of Agricultural Economics* 12(2): 5–13.
- Zeithaml, V.A. 1988. "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence." *Journal of Marketing* 52(3): 2–22.
- Zheng, Y., and H.M. Kaiser. 2008. "Advertising and U.S. Nonalcoholic Beverage Demand." *Agricultural and Resource Economics Review* 37(2): 147–159.