

Locavors: To Target, or Not to Target?

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Abstract

"Locavors" are defined as people who prefer to purchase their food from local sources, defined as 50, 100, or 200 kilometres from home. They will attract attention as a potential segment to be targeted for assorted food products for reasons given below. However, for food exporting countries such as New Zealand and Australia, growth of "buy local" in importing countries disadvantages products with high "food miles," especially if they also have a relatively large "carbon footprint." While the segment of people demanding "local" is growing, it is still small. This paper suggests counter-segmenting; that is, focusing on segments where suppliers are not disadvantaged. Illustrative research is reported showing differing wants of Locavore and non-Locavore segments in one export local market.

Keywords: Locavore, Export, Food, Targeting, Segmentation

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Introduction

Associated with the nationalization and internationalization of the argi-food business is an increasing necessity for consumers seeking improved quality in their food to rely on credence attributes. Credence attributes are ones that cannot be ascertained by direct experience (e.g., dolphin-safe, free-range, fair trade, organic, place of origin, and locally grown). In contrast, experience attributes can be ascertained on the basis of actual experience with the product (cf. Darby and Karni, 1973; Nelson, 1970, 1974). Many studies have shown that credence attributes influence consumers' buying intentions (Dentoni, et. al, 2009). For example, it has been shown that "local" or "locally grown" attribution affects consumers' willingness-to-pay for food products (Darby, et. al., 2008; Froelish, et.al. 2009).

This paper summarizes results from a large, Internet survey that included questions regarding of consumers' stated behavior and views regarding credence attributes of various forms of fresh produce (in general) and apples (in particular). As described below, Locavore versus non-Locavore segments are created based on respondents' shopping behavior. The resulting Locavore segment is characterized by willingness-to-pay and willingness-to-shop characteristics found in previous studies. The segment also has other characteristics that make it an attractive segmentation target.

Given the representative finding reported in this paper, it is not surprising that the Locavore segment has attracted marketing resources. In the US, 44 state departments of agriculture administer programs that label and promote foods grown or processed within the state's borders; major food retailers such as *Whole Foods* and *Wild Oats* sell and promote locally grown foods; and there are over 3,700 farmers' markets, and more than 1,000 Community Supported Agriculture groups, where consumers "join" by purchasing a share of the total production of a single locally operated farm (Darby, et.al., 2008). The Locavore segment undoubtedly will receive increasing attention, especially by locally advantaged suppliers and retailers who wish to target the segment.

This paper profiles representative characteristics of the Locavore segment that make it attractive, especially for locally advantaged suppliers. The paper then considers the case of suppliers that are "locally disadvantaged". How for example can intrinsically disadvantage suppliers, such as exporters of apples from New Zealand and Australia, respond to local suppliers' focusing on Locavore segments in Europe or the US? We use as a framework for the discussion of strategic responses the theory of attitude formation originally formulated by Fishbein (Fishbein, 1967; Fishbein and Ajzen, 1975) and extended by Lutz (1975) to marketing strategy. There are extended formulations of the model, such as the Theory of Reasoned Action and the Theory of Planned Behavior (as well as alternative conceptualizations of the simpler formulation). The formulation we adopt takes the form:

$$BI \approx A_{act} \approx \sum_{i=1}^n I_i b_i$$
, where BI is the behavioral intention to purchase product, A_{act} is the attitude toward purchasing product, I_i is the importance the person attaches to the product being characterized by attribute i , and b_i is the person's belief about whether attribute i characterizes the product. This formulation of attitude change suggests six strategies for targeting markets, such as the market for apples: changing BI or A_{act} (directly changing intention to purchase or attitude toward apples - primary demand strategies), change the

importance of an attribute, changing beliefs about whether the product is characterized by the attribute, or adding an additional attribute (selective demand strategies).

The Focal Product

Focus groups indicated that when considering buying locally one of the first categories consumers consider is fresh produce. Various forms of fresh produce also are available to most households. Apples are one of the most frequently purchased produce items in the supermarket and very often have local production. They also are exported from numerous countries. For example, apples are imported to the US from South America, New Zealand, South Africa and to a lesser extent Australia (USDA, 2009). Apples are grown in every state in the continental United States, and are grown commercially in 36 states (US Apple Association, 2006).

Methodology

The Survey

Data was collected using an Internet survey of (1) primary household food shoppers, (2) who were residents of the US state of Pennsylvania, (3) over the age of eighteen, (4) who had purchased fresh produce during the past six months. Pennsylvania is recognized as having a good representation of urban, suburban and rural settings and of industrial and agricultural commerce (US Census, 1995). The state also is a major producer and consumer of apples and ranks 4th among all US states in apple production (Pennsylvania Apple Board, 2009). The survey was developed and administered to a commercial panel of 1,218 residents who satisfied the screening criteria listed above. Fifteen thousand nine hundred and ninety-one (15,991) invitations were sent to panel members. The number who clicked-through to the survey website was 1957, giving a click rate of 12% (Calculated – $1957/15,991$). The click rate for a standard/similar online survey research project is 15% to 20%. The slightly less than normal click rate of the present survey is attributable to the time frame for the survey, the middle of June 2009, a time when prospective respondents are busy with school closing and vacations.

Of the 1957 people clicking through to the survey website, 504 were terminated in the screening process and 229 dropped out before completing the survey. The number of submissions was 1224, giving a submission rate of 63% (Calculated as $1224/1957$). The overall response rate for the survey is given as the product of click rate (12%) times submission rate (63%). The overall response rate for the survey was 7.6%, which is typical for Internet surveys. The average time for completing the survey was 26.5 minutes.

The Questionnaire

The survey instrument was comprised of three primary aspects:

1. Traditional attribute, trial and usage (AT&U) data as well as demographics were collected and analyzed using traditional methods and/or replicating the work of other studies.

2. The survey also included a conjoint or trade-off analytic experiment where respondents were asked to rate their preference for various apple products consisting of different levels of key apple characteristics. The data was used to quantify how much consumers are willing to give up in terms of product appearance, price, and value of locally produced or other variables obtained from demographic and AT&U variables.
3. The final part of the quantitative survey research collected two types of data describing respondents' wants for an apple attributes. The first data consists of consumers' rank order preference for twelve attributes of apples: Color, Flavor, Nutritional Value, Organically Grown, Price, Quality, Ripeness, Size, Texture, and Variety. The second type of data consists of respondents characterizing their "ideal" apple in terms of these twelve attributes.

Analysis

We create Locavore category using 2-step clustering of five questions shown in Table 1, Section A. Looking at the "Classifying the Segments" section of the table, it can be seen 388 respondents (32%) fall into the Locavore segment and 836 (68%) fall into the non-Locavore segment. This result is consistent with Bond, et. al. (2006) who (based on an Internet based survey of a representative sample of the US population) classified 30% of their sample as supporters of local food systems. Sixty-seven percent of our Locavore segment (123 respondents) have visited a pick-your-own farm in the past year. Thirty-three percent (1 - 67%) of respondents did not visit a pick-your-own farm (265 respondents). None of the Non-Locavore respondents visited a pick-your-own farm in the past year. Eight hundred and thirty-six respondents did not visit a pick-your-own farm. The difference between the groups on this question is highly significant; $\chi^2 = 714$. Similar interpretations apply to the remaining four variables.

Significance levels for reported results are provided in Table 1. Consistent with previous research the Locavore segment is willing to pay more for a related credence attribute, certified organic fruits and vegetables (58% to 45%, Section B, Table 1). A larger proportion of Locavores also say they would switch supermarkets to purchase organic fruits and vegetables.

The Locavore segment has a number of attributes that make it a likely candidate for a segmentation strategy (Section C, Table 1). Locavore households are more likely to have incomes larger than non-Locavores USD60,000 (34% to 26%). They are more likely to have 3 or more members than non-Locavore households and be more likely to say their household makes a conscious effort to eat healthy. Locavore households have higher stated average expenditure on fresh produce (\$109 to \$89) and are more likely to consume more than one pound of apples per week (59% to 46%).

Locally advantaged suppliers will want to consider targeting the Locavore segment and the segment has characteristics that facilitate targeting. As mentioned above, Locavores are willing to pay for credence attributes, such as organic. The segment does a significantly larger percent of its shopping in outlets such as health food stores and small grocery stores where local producers may have advantaged access. Locavores rely on local media for information about advertised specials and food safety. As to attributes of the target product, the two segments agree on three of their five most important attributes: quality, flavor, and ripeness.

The two remaining attributes in Locavores top five are texture, and variety, while for non-Locavores they are price and nutritional value.

Locally advantaged suppliers targeting the Locavore segment may adopt a strategy of increasing beliefs that their product is "local" (e.g., with "locally grown" certification and product labeling) and increasing the importance attached to the "locally grown" attribute (with commercial and non-commercial communication).

Table 1 - Locavore Segments

	I: Percent Segment					II: Percent Sample	
	Locavore (n = 388)	Non- Locavore (n = 836)	χ^2	d.f.	Sig.	Locavore	Non- Locavore
(A) Classifying Locavors							
Visited a pick-your-own farm in the past year: Yes	67%	0%	714	1	0.00		
Purchased from Community farmers' market past year: Yes	80%	36%	246	1	0.00		
Grow fruits and vegetables at home: Yes	74%	28%	229	1	0.00		
Purchased from roadside stand past year: Yes	62%	28%	131	1	0.00		
Availability of fresh fruit and vegetables key reason for shopping store: Yes	46%	25%	54	1	0.00		
(B) Key Segment Characteristics							
Willingness to pay more for organic fruit and vegetable*	58%	45%	24.0	6	0.00	37%	63%
Would switch supermarkets for organic fruits and	36%	23%	24.3	1	0.00	42%	58%
Knowledge of fruit and vegetables quality (5, 6, or 7)**	71%	47%	77.0	6	0.00	41%	59%
Knowledge of fruit and vegetables safety (5, 6, or 7)**	60%	42%	50.0	6	0.00	40%	60%
(C) Attractiveness of Segments							
Number of households	388	836				32%	68%
Percent with household income greater than \$60,000	34%	26%	19.3	5	0.00	38%	62%
Percent households with three or more people	62%	46%	39.0	5	0.00	39%	61%
Does your family consciously eat healthy: Yes	89%	78%	23	1	0.00	35%	65%
Dollar expenditure on fruits and vegetables per month	\$109	\$84	27.3	1	0.00	38%	62%
Consume more than 1lb of apples per week	59%	46%	18.6	2	0.00	37%	63%
(D)Segmentation Relevant Variables							
Shopped in supermarket in past year	96%	96%	0.0	1	1.00	32%	68%
Shopped in Super Center (Wal-Mart, Target, etc.)	77%	70%	6.0	1	0.01	34%	66%
Shopped in small grocery store or neighborhood market	67%	52%	26.0	1	0.00	37%	63%
Shopped in health food store.	31%	16%	37.0	1	0.00	47%	53%
Regularly shop more than one store for advertised specials	40%	30%	18.5	2	0.00	38%	62%
Media reports on food safety help decide food to purchase: usually or always	23%	20%	13.3	3	0.01	34%	66%
Five most important attributes:							
First	Quality	Flavor					
Second	Flavor	Quality					
Third	Ripeness	Price					
Fourth	Texture	Ripeness					
Fifth	Variety	Nutritional Value					
* 1= not at all, 4 = moderately, 7 = extremely							
** Combined 16 to 20 cents, 21 to 50 cents, and 51 cents or more.							
Note: Where categories are combined to report in banner and stub format, the statistics reported are for the disaggregated data.							

What of the Locally Disadvantaged?

Before considering tactical strategies for the locally disadvantaged, we first consider the question of the relative sizes of Locavore and non-Locavore segments. Even if the relative population size of the Locavore segment is as large as indicated by the present survey, it still is the case that most of the population on each variable reported in Table 1 are non-Locavors. For example, while 58% (versus 45%) of *Locavors* are willing to pay more for organic produce, 63% *of those willing to pay more* are non-Locavors (Table 1, *Percent Sample* columns). Similarly, 34% (versus 26%) of Locavore households have incomes greater than \$60,000, but 62% on households with incomes greater than \$60,000 are non-Locavore households. Even if the population size of the Locavore segment is as large as indicated, *on each of the segmentation variables, most of the population are non-Locavors.*

There are reasons to believe, however, that survey results overstate the size of the Locavore segment. For example, those with interest in a survey topic are more likely to participate in a survey (Evangelista, Albaum, & Poon, 1999). In addition, stated behavior and intentions for products having "demand characteristics" often overstate actual outcomes. For example, largely in response to favorable market research, almost 6,000 new organic food products were introduced in the US between 2002 and 2007 (Mintel, Organic Food report, 2007). Yet the segment has garnered only about 1% of total US supermarket sales and only 6% in fresh produce sales, which are often considered the vanguard of organic foods (AC Nielsen, 2008). Organic dairy has decreased 1% in 2009 for the first time (Organic Trade Association, 2009). It is possible that locally advantaged suppliers may shift resources into attracting Locavore customers before the actual attractiveness of the segment is determined. Local competitors' (correct or incorrect) shift of resources to focus on what they consider to be an attractive segment may create opportunities for the disadvantaged firms, such as exporters of produce.

How should locally disadvantaged suppliers of produce respond? Beginning with product attributes, an "adding an attribute" strategy should be considered, specifically a credence attribute to counter "locally grown." For exporters, a national (possibly regional) appellation is sensible. The appellation can be tied to Quality and Flavor, two attributes valued by both Locavors and non-Locavors. Adding "certified" labeling of product facilitates this approach. If the exporting country has differential advantage on Value (Price) or Nutritional Value, Non-Locavors may be differentially targeted on these attributes either by increasing the importance attached to the attributes or the perception that the attribute(s) differentially characterize the exporter's offering. As to distribution, our results suggest non-Locavors do not shop at the variety of venues as do Locavors. Supermarkets and to a lesser extent to Superstores are the place to find the non-Locavors. Non-Locavors are less likely to use commercial media for information on the food products than Locavors. When targeting the non-Locavors, it appears that in-store advertising and store circulars would be a more effective use of promotional dollars than mass media.

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