

Attributes Affecting Consumer Choice

Gilpatrick D. Hornsby
Oklahoma State University

Introduction

With the growth globalization, an attribute that has gained recognition as a determinant in consumer purchasing is the food's Country-of-Origin. In 2002, congress first passed Country-of-Origin Labeling (COOL) laws, but ran into much resistance from the food industry due to the cost that would be associated with complying with the law. It was estimated to cost the food industry \$2.5 billion in the first year by the USDA.

Even with the resistance, by 2005 parts of the COOL pertaining to fish and seafood in effect. During the following four years, the idea of labeling a foods country of origin gained momentum due to several food recalls and foodborne illness outbreaks. On March 16th 2009, the final rule for COOL went into effect. The law covers all muscle cut and ground meats: beef, veal, pork, lamb, goat, and chicken; wild and farm-raised fish and shellfish; fresh and frozen fruits and vegetables; peanuts, pecans, and macadamia nuts; and ginseng. Supporters of the COOL statute propose that if consumers know where their food is coming from, than they will be able to make a more educated decision on purchasing food from countries known for foodborne illnesses or outbreaks.

The overall objective of this research is to determine if country of origin has an effect on consumer purchasing habits when the attributes of price and appearance are applied. This objective will be reached by answering the following research questions:

- How do consumers rank the attribute of price, appearance, and COO?
- Are consumers perceived ranking of the attributes of price, appearance and COO consistent with their choices in presented scenarios?
- When presented with consistent variables of price, appearance, and COO, will consumers make consistent choices?

Previous Research

In determining the relevance of attributes used by consumers in the purchasing process, we first look at how choices are made. In most situations a consumer must choose among the available options or search for other alternatives (Tversky & Shafir, 1992). One goal is for the consumer to maximize the accuracy (Bettman, Luce, & Payne, 1998) or in this instance, the value of their choice.

Many choices are not a "black and white" issue. When consumers are making a decision, it is usually not just one attribute that is being judged. This makes research looking at consumer information processing difficult because it is hard to quantify what attribute has had the most influence on the choice (Elliott & Cameron, 1994).

A more narrowly defined area of choice is food choice. When looking at food choice, the consumer must weigh the perceived value of their purchase with the nutritional value of the

purchase (Furst, Connors, Bisogni, Sobal, & Falk, 1996; Stepoe, Pollard, & Wardle, 1995). This study will only be looking at fruits and vegetable purchases. Being that the health benefit of fruits and vegetables is extremely high (Duyn & Pivonka, 2000), the effect of nutritional value on the decision making process is outside of the scope of this research. This research will focus more on the effect of the attributes affecting the choices made by consumers.

Appearance

The appearance of food is a part of set of sensory attributes and are used to evaluate the quality of the food (Northen, 2000). In the instances of pre purchase most of the sensory attributes will not apply. It would not be prudent for a consumer to bite each apple to determine freshness or peel and feel each banana to make sure the desired texture is achieved. So without use of these attributes, consumers fall back upon the other sensory attributes that may not allow them to fully experience the quality of the food, but instead make judgments on the perceived quality of the food (Northen, 2000).

Research has shown that when unable to physically taste the food, “the first taste” of a food is done with the eyes (Imram, 1999). The appearance of the food is one of the first barriers to purchase. This is to say that sound and smell to not play a role in intention to purchase, but the initial driving factor are the visual cues. Appearance includes sub-sensory attributes such as color, opacity, gloss, visual structure and visual texture. These attribute enable the consumer to make judgments about the perceived flavor of the produce (Imram, 1999). Of these attributes, color is major attribute that affects a consumer’s perceived quality (Francis, 1995).

Price

The attribute of price is another factor that influences the purchasing decision. Zeithaml (1988) defined price as, “...what is given up or sacrificed to obtain a product.” To some consumers the sacrifice of monetary resources is paramount. This can be seen though investing countless hours in coupon clipping and traveling to different stores to obtain the best bargain (Chang & Wildt, 1994).

Perceived value can be defined as the relationship between perceived price and perceived quality (Chang & Wildt, 1994). For example, if the perceived quality is greater than the perceived price, than the perceived value is seen as high. Though the level at which a consumer is willing to pay varies. Consumers are willing to sacrifice quality in some situations in order to satisfy the price level they feel is adequate (Carmon & Simonson, 1998).

Country of Origin

Many studies have been done to assess consumer’s wiliness to pay for mandatory country-of-origin labeling laws, but few have looked at if it is an attribute that consumers look while purchasing. When looking at country of origin, many proponents cite food safety as the chief reason for needing labeling (Loureiro & Umberger, 2005). Puduri, Govindasamy, & Onyango (2006) found that 84% of their respondents favored COOL largely due to food safety fears.

Methodology

The target populations for this study were students at the University of North Texas from the School of Merchandising and Hospitality Management. A total of 833 students in both the Merchandising and Hospitality management Departments were included in the convenience sample. Students were invited during class time as scheduled with the professor. Extra emphasis was placed on informing students that neither extra credit nor penalty would occur with this study. The protocol for this study was approved by the University of North Texas Institutional Review Board.

The survey instrument was designed to explore three independent attributes (price, appearance, and country-of-origin) and their affect on consumer choice. The survey was administered using a PowerPoint presentation and a paper survey in order for the participant to record their responses. The PowerPoint began a description of the study and as an informed consent notice.

The survey was divided into several sections. The first section asked participants to choose between two options, "A" or "B", for twenty different scenarios. The scenarios were based on nine different combinations of the attributes of price, appearance, country-of-origin. Situations of both price and appearance consistent was used in four different scenarios. Each of the other situations was used in two scenarios. The scenarios were randomly ordered in the survey.

The next portion of the survey asked the participant to rank the attributes of price, appearance, and country-of-origin. Questions in this section also asked participants about their shopping habits and if they found validity in reasoning behind country-of-origin labeling laws. The final portion of the survey collected demographic data about the participant. After the survey was piloted, it was concluded that ten seconds was too short of a time period for participants to make a decision, so slide progression was increased to twenty seconds

Results

The study included 516 responses with 40 unusable surveys leading to a 57% usable response rate. Results were gained through descriptive statistics and organized by scenario situation.

Price Constant. In situations when the price was held constant, produce labeled to have come from America and having better appearance then the produced labeled to have come from Mexico was chosen on average 88% of the time. Over the survey this situation did see decrease in selection by 17%. In situations when the price was held constant, produce labeled to have come from Mexico and having better appearance then the produced labeled to have come from America was chosen on average 93% of the time. Over the length of the survey this situation did see an increase in selection by 3%

Appearance Constant. In situations when the appearance was held constant, produce labeled to have come from America and was cheaper than the produced labeled to have come from Mexico was chosen on average 89% of the time. Over the survey this situation did see decrease in selection by 9%. In situations when the appearance was held constant, produce labeled to have come from Mexico and was cheaper than the produced labeled to have come from America was chosen on average 67% of the time. Over the length of the survey this situation did see an increase in selection by 3%

No Constant. When neither price or appearance were held constant, American produce that looked better but cost more than produce labeled to have come from Mexico was chosen on average 90% of the time. Over the survey this situation did see a decrease in selection by 12%. When neither price or appearance were held constant, Mexican produce that looked better but cost more than produce labeled to have come from America was chosen on average 91% of the time. Over the length of the survey this situation did see an increase in selection by 1%

When neither price or appearance were held constant, American produce that looked better and was cheaper than produce labeled to have come from Mexico was chosen on average 93% of the time. Over the survey this situation did see a decrease in selection by 11%. When neither price or appearance were held constant, Mexican produce that looked better and was cheaper than produce labeled to have come from America was chosen on average 95% of the time. Over the length of the survey this situation did see an increase in selection by 5%

All Constant. When both price and appearance were held constant, American produce was selected on average 75% of the time. This situation was repeated four times with an overall increase from the first occurrence to the last of 16%

Purchasing habits. When asked how they rank the 3 attributes, participants answered according to the data in Table 1. In the event that a participant only marked one of the three in the ranking, the remaining two choices were both given an even score of second. When asked if they look at the country-of-origin when purchasing 76% said no, yet 92% felt that the reasoning behind the law was valid. A total of 90% said they would change their purchasing habits if there was a foodborne outbreak in a different country.

Table 1

	1 st	2 nd	3 rd
Appearance	87%	12%	1%
Price	12%	78%	10%
Country of Origin	1%	16%	83%

Limitations

Primarily, two limitations affected the scope of this study. The first limitation of this study would be demographics of this study. The majority of participants were students and data may not be as generalizable to other demographic areas. The profile of our participant was Caucasian (65%), female (83%), having some college or associates degree (83%), and was between the ages of 19-22 (69%). Secondly, limited resources affected the breath of the study. Due to a lack of funds, focus groups using actual produce were not achievable also leading to a reduction in attributes that can be evaluated without the physical product such as smell and texture.

Bibliography

- Bettman, J., Luce, M., & Payne, J. (1998). Constructive Consumer Choice Processes. *Journal of Consumer Research* , 187-217.
- Carmon, Z., & Simonson, I. (1998). Price-Quality Trade-Offs in Choice Versus Matching: New Insights Into the Prominence Effect. *Journal of Consumer Psychology* , 323-343.
- Chang, T.-Z., & Wildt, A. R. (1994). Price, Product Information, and Purchase Intention: An Empirical Study. *Journal of the Academy of marketing Science* , 16-27.
- Duyn, M. A., & Pivonka, E. (2000). Overview of the health benefits of fruit and vegetable consumption for the dietetics professional: Selected literature. *Journal of the American Dietetics Association* , 1511-1521.
- Elliott, G. R., & Cameron, R. C. (1994). Customer Perception of Product Quality and the Country-of-Origin Effect. *Journal of International Marketing* , 49-62.
- Francis, F. (1995). Quality as Influenced by Color. *Food Quality and Preference* , 149-155.
- Furst, T., Connors, M., Bisogni, C. A., Sobal, J., & Falk, I. W. (1996). Food Choice: A conceptual Model of the Process. *Appetite* , 247-266.
- Imram, N. (1999). The Role of Visual Cues in Consumer Perception and Acceptance of a Food Product. *Nutrition and Food Science* , 224-230.
- Loureiro, M. L., & Umberger, W. J. (2005). Assessing Consumer Preferences for Country-of-Origin Labeling. *Journal of Agricultural and Applied Economics* , 49-63.
- Northen, J. R. (2000). Quality Attributes and Quality Cues. *British Food Journal* , 230-245.
- Puduri, V., Govindasamy, R., & Onyango, B. (2006). Country of Origin Labeling of Fresh Produce: A Consumer Preference Analysis. *New Jersey Agricultural Experiment Station* , 1-20.
- Stepoe, A., Pollard, T. M., & Wardle, J. (1995). Development of a Measure of the Motive Underlying the Selection of Food: the Food Choice Questionnaire. *Appetite* , 267-284.
- Tversky, A., & Shafir, E. (1992). Choice under Conflict: The Dynamics of Deferred Decision. *Psychological Science* , 358-361.
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *The Journal of Marketing* , 2-22.