



A study of the factors that influence consumer attitudes towards beef products using the conjoint market analysis tool

Abstract: Beef producers looking for a competitive edge in today's markets need information about the qualities that consumers consider most important. Using conjoint marketing analysis allowed the investigators to sort out the most relevant characteristics for meat purchasers.

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Q Can diversified, low-external-input (LEI) cropping systems produce yields and profits that match or exceed those obtained from conventional systems?

A The results of this study demonstrate that region of origin is the most important factor influencing consumer attitudes regarding beef products. Consumer preference for beef that is locally produced will be more highly valued than products produced in other regions of the country and in other countries. This indicates that a premium can be obtained by local Iowa producers marketing their products as a local-Iowa brand.



Background

Beef producers are facing several significant challenges as the industry moves toward de-commoditizing beef products.

- An increasing supply of offshore beef adds to the amount of commodity beef available and decreases the price that domestic producers can garner for their quality beef products.
- Consumers are calling for more and better information about the origin of beef products they purchase.
- Producers need to know what meat qualities are valued most by consumers and how important these features are to purchasing decisions.

This study sought to determine the relative importance of the factors that will produce the greatest value for consumers and the optimal profitability for producers. Consumers were asked about their attitudes and preferences related to traceable beef products. Branding and product differentiation will be rewarded only if the consumer is willing to pay for the information or assurances associated with the information that is provided by a brand or labeling.

Approach and methods

The researchers employed a widely used marketing methodology, the conjoint technique, which has been used successfully as a market research and analysis tool for a variety of consumer goods. Conjoint is a statistical technique that asks a consumer to evaluate the value of a product by combining the utility he or she has for each of the product's attributes. By evaluating the product attributes in combination, the results of a conjoint analysis provide a more reliable picture of the consumer's preferences. For example, if a consumer were asked about attributes such as price, region of origin, or similar features one-by-one, they would not have to choose between factors they might prefer but, for example, not be able to afford. Conjoint incorporates

contrasts that simultaneously consider these combinations that require tradeoffs in the choice between preferred and less preferred combinations.

The outcomes of this market analysis provide useful information about the importance of traceability in general, plus the relative importance (i.e., utility) of information about various product characteristics such as country of origin, producer information, animal feed, genetics, and hormone use.

Data for the study were captured in three waves. First, groups of business and agricultural college students were surveyed in order to refine the factors to be analyzed in the study and to identify the relative importance of respondent knowledge about steak. Second, a national sample of 1,171 steak-eating respondents was questioned. Because the results of the second data collection effort produced somewhat unexpected results, a third sample (another group of college students) was surveyed to verify the responses of the national sample.

Results and discussion

The study showed that the factors influencing consumer perceptions of value were largely consistent throughout the different groups. Region of origin was the highest value factor mentioned in all responses. It also appeared that the knowledge the respondents had about steak influenced their selection of what factors were important. Specifically, consumers with a greater knowledge about steak characteristics preferred region of origin, type of cut, animal breed and type of feed as factors. Gender and attitude toward the environment only altered the order of the top five factors. The factors cited in the top five slots were the same regardless of gender or environmental attitudes.

Conclusions

The conjoint technique of marketing analysis was used to examine consumer opinions on a set of beef steak characteristics. This study was the first to use conjoint methodology to examine a national sample of U.S. consumers in order to identify their preferences for beef across a number of product characteristics.

The analyses demonstrated that for all respondents, region of origin was a substantially more important quality than other product characteristics. It was followed in importance by animal breed, traceability, animal feed and beef quality. The least important qualities as ranked by consumers in the survey were cost of cut, farm ownership, use (or non-use) of growth promoters and whether the product was guaranteed to be tender. Animal science students who took part in the survey were more likely to rank beef quality above other factors.

In summary, the ideal steak for the survey subjects would be from a locally produced Angus that is traceable to the farm or point of origin and fed a mixture of grain and grass. If the product was not produced locally, respondents indicated that their preferred production states are, in order from most to least preferred: Iowa, Texas, Nebraska and Kansas.

Impact of results

Region of origin for beef products trumped all other characteristics in importance to consumers. This is valuable information for U.S. farmers because it demonstrates potential for adding a preference premium to U.S.-produced beef products. Beef producers in Iowa, Texas, Nebraska, and Kansas can use this information to develop branded or premium products based on location of production. The significance of demonstrating that location of production is important and valued is relevant to the debate about country of origin labeling (COOL) and the deployment of the national animal identity system (NAIS).

For grass-fed beef producers, the data suggest that consumers place relatively little value on the type of feed used to produce the animal. While feed type was shown to be important for more knowledgeable beef buyers who preferred the combination of grass- and grain-fed beef, it was not shown to be as critical to the average consumer. The results suggest that education about the nature of food products, production processes and the relationship to beef quality could have an effect on consumer attitudes.

Product features associated with origin and production methods matter to consumers who responded to the survey. This data implies that maintaining identity throughout the production value chain will help producers and processors derive value if they can associate their products with these traits.

While preservation of product information throughout the production chain is important, it also is critical for this information to be utilized effectively to add value to the final steak product. Producers can work with sale barns, processors and retail/sales outlets to establish efficient ways to share value-adding information with consumers. Consumer education programs that show the virtues of different beef characteristics and other value-adding qualities could change attitudes and product priorities. More research could help determine the type, amount and nature of consumer education that would be most effective.

Education and outreach

A scholarly journal article was prepared on the results of this study. See Mennecke, B.E., Townsend, A.M., Hayes, D.J., and Lonergan, S.M. A study of the factors that influence consumer attitudes toward beef products using the conjoint market analysis tool. *The Journal of Animal Science*, Volume 85, Number 10, pp. 2639-2659, October 2007.

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