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Conference Paper · June 2015

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CONSUMER AND PRODUCERS' PERCEPTION OF BEEF: A STUDY FROM BRAZIL AND UNITED STATES

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PROBLEM STATEMENT

According to Lancaster (1966) a product is composed of several attributes and consumers attach value to these attributes rather than the product itself. They are evaluated based on experiences, values and consumer's beliefs, which are the main stimulus when choosing a product (Peter & Olson, 2002). Consumers use attributes as a basis for evaluating a product (Puth, Mostern And Ewing, 1999). Some attributes create a strong sense of preference that affects consumers' purchasing intentions (Tuncalp, 1942). In the case of beef, health and safety attributes such as origin and certification, and process attributes related to production such as animal welfare and environmental responsibility are gaining greater recognition (Evans et. al., 2011; Umberger et al. (2003); Loureiro & Umberger, 2003; McCluskey et al., 2005; Christensen et al., 2003). However, studies consider that flavor and tenderness may be the most important factors when choosing beef (Lusk & Fox, 2000; Fieldkamp, Schroeder & Lusk, 2003; Goss, Holcomb & Ward, 2002; Hoffman, 2000).

In order to beef producers, processors and meat retailers carry out the production and marketing in an effective and differentiated way, they need information on how to produce and sell it to meet consumer preferences (Parcell & Schroeder, 2007). However, if the product is differentiated the developer will have more choices, and these may or may not meet the preferences of consumers, which may be responsible for making the product to fail in the market. Decisions on product development should be carried out through market information considering the behavior of the consumer (Grunert et al., 2011). However, even if beef producers are willing to produce top quality meat and consumers are interested in quality attributes, they may not realize or even refuse a product with superior quality (Grunert, 1997). In view of this problem, there is a need to understand the perception of the agents involved in the chain, especially beef producers and consumers who are present at the extremes of it, in order to improve the understanding between them and thus enabling producers to produce a product with higher added value, meeting consumer demands.

OBJECTIVES

The study aimed to investigate the perception of beef producers and consumers concerning various aspects of beef production chain. The specific objectives were: (1) to identify the attributes that make up the central image of aspects of beef production chain, such as marketing, production and product; (2) to analyze the values present in the decision-making process of producers and consumers concerning beef; and (3) to compare the image and values of producers, Brazilian and American consumers.

METHODOLOGIES

The present study is qualitative and exploratory. Two distinct stages were performed. In Step 1, Products Image and Configuration Technique was held to identify image attributes of a product. In the method, the interviewer chooses an attribute of the mental model related and uses it as a stimulus for the interviewees, without connecting to other ideas (Schüller, 2005). During the interviews, respondents cited five attributes that they referred to aspects of beef production. For the analysis, a table was done in which the attributes gained weight in order to find the total value. The highest total value was divided into quartiles from which four classifications were created: center image (the first and highest quartile), first periphery (second quartile), second periphery (third quartile) and third periphery (fourth and last quartile).

In Step 2, Means-End Chain Technique was performed and the method used in operationalization is called laddering, which aims to understand how individuals translate the attributes in significant associations. The purpose of this technique is to determine sets of links between the key elements of all attributes (A), impacts (I) and values (V) (Reynolds & Gutman, 1988). Respondents arranged the attributes that they cited in Step 1 according to the importance they

attached. The most important of each question was directed to the laddering technique, with repetitive questions of “why is it important to you?”, which resulted in the consequences of each attribute and referred to personal values of these individuals. The values were based on Schwartz (1992) who ranked the values in ten types of motivational domains: Power, Achievement, Hedonism, Stimulation, Self-direction, Universalism, Benevolence, Tradition, Conformity, and Security.

To analyze the data, firstly the content of the interviews was examined. After that, a table was elaborated dividing the responses into: the most important attributes mentioned (A), three impacts (I) and values (V). From this table, the hierarchical value map (HVM) or Laddermap was built through Microsoft Visio software, which mapped all relations, whether direct or indirect, between two elements. The cutoff point excludes a number of relations that is below the number stipulated by the researcher, since it is weak. In this study, the map covered 70% of relations.

The survey sample counted with a total of 101 respondents, including 39 beef producers, 32 Brazilian consumers and 28 American end consumers. The questionnaires with beef producers occurred in December 2012 and January 2013 in the states of Mato Grosso and São Paulo due to the fact that they are the major producing regions of beef. In February, the survey was conducted with Americans end consumers in the city of Columbus, in Ohio, and the sample is composed of students and staff at Ohio State University. In July and August of this same year, the survey was conducted with end consumers of Campinas and Piracicaba, since it is a region known for high standards of consumers. In Campinas, the questionnaires took place downtown and in a park, and in Piracicaba, it was conducted with college students and researchers’ acquaintances. The sample was heterogeneous since it is an exploratory research.

RESULTS

The research scope of this project is linked to the attributes perceived by Brazilian beef producers, intermediate Brazilian consumers of beef, Brazilian consumers and end consumers in the United States. The summarized results can be seen in Table 1.

For beef producers, the central image of marketing was formed by "negative" and "non-existent". The attribute "weak" also had a total value high enough to be classified in the first periphery. These results show that beef producers believe that there is little or no marketing initiative in the industry, which opens the possibility to create actions that not only promote, but also better inform consumers about the product and its benefits. Thus for producers, the image of marketing was considered negative due to the consequences cited in the interviews such as “marketing is bad and ineffective, it causes the lack of compensation and, consequently, the loss of passion for exerting the activity”, which impair their continuation in it and that can be linked to the value "security". The value "achievement" was derived from the desire to produce better and the success of respondents. Brazilian consumers linked the central image of beef marketing with the brand “Friboi”. For these consumers, as well as for the producers, the value "security" was also found. However, in this case, it was related to health and not to job or financial security. The value "hedonism", which was considered as an individual and momentary value was related to the power of choosing a brand.

The attributes "hard working", "disunited" and "persistent" formed the central image of the beef producer according to the producers themselves, who have the value "security" related to survival in the activity. For Brazilian consumers who were interviewed, the central image of cattle rancher was related to the attributes "vaccine", "quality" and "hygiene", and the values found were security related to health, and achievement related to the power to accomplish. "Farmer" formed the central image of beef producer for American consumers, who had the safety values also linked to health, and self-direction related to decision-making. It was noted that for Brazilian consumers the image of the producer is linked to the production process, while for Americans, it is linked to the individual who produces. For producers, the image of themselves refers to their own characteristics.

	Producer	Brazilian consumer	American consumer
Central Image of Producer	Hard working	Hygiene	Famer
	Disunited	Quality	-
	Persistent	Vaccine	-
Values	Security	Security	Security
	-	Universalism	Self-direction
	-	Achievement	-
Central Image of Consumer	Price of product	Quality	N.A.
	Quality	-	N.A.
Values	Security	Security	N.A.
	Achievement	Achievement	N.A.
	Benevolence	-	N.A.
Central Image of Product	Taste	Quality	Oxen
	Protein	-	-
Values	Security	Security	Security
	Achievement	Universalism	Self-direction
	Universalism	Benevolence	-
	-	Achievement	-
	-	Hedonism	-
Central Image of the Future of production	Adhesion of Technologies of the moment	Better Quality	N.A.
	Quality	-	N.A.
Values	Security	Security	N.A.
Central Image of Production	N.A.	Quality	Oxen
	N.A.	Confinement	Farm
	N.A.	-	Slaughter
Values	N.A.	N.A.	N.A.
Central Image of Quality	Origin	Good	N.A.
	Cutting	-	N.A.
	Good	-	N.A.
	Preservation	-	N.A.
Values	N.A.	N.A.	N.A.

Table 1. Products Image and Configuration Technique and Means-end Method results.

Source: Authors.

N.A.: Not applied to the questionnaire.

For beef producers, the central image of consumer was formed by "quality" and "price of the product". Both are directly related, as they are understood by beef producers as demands of consumers, who seek both high "quality" and low "price of the product" at the time of purchase. The values found were achievement linked to profit, and benevolence related to the fact that people eat well and have a good diet. Regarding how Brazilian consumer perceives himself, the central image that was formed is "quality". This attribute also formed the central image of consumers in the conception of producers. This result reflects, on a common perspective, the consumer in relation to the initial and final links of the chain. The values of consumers were safety, which was linked to protein, and achievement related to efficiency. For American consumers this question was not performed.

Producers considered that the attributes "taste" and "protein" form the image of beef and presented values such as universalism (national economy) and achievement (profit and adding value to the product). For Brazilian consumers, the central image was formed by the attribute "quality" once again. One more time, security was a present value in Brazilian consumers as well as universalism, achievement (having quality of life), benevolence (union, sharing moments and parties with friends), universalism (less public spending on health) and hedonism (being satisfied). For American

consumers, the central image of beef was formed by "oven", which showed a high total value. The results demonstrate that these American consumers associate the image of the product to the animal, unlike the Brazilian ones who relate to a requirement. It is observed that the security value was present for Brazilian and American consumers, and in both cases it was linked to health, as well as achievement was related to quality of life. However, for the American ones, the value stimulation that had not appeared yet was related to the strength and energy that the product provides.

Regarding the attributes that characterize the future of beef production for producers, the image was formed by the adhesion of technologies of the moment and quality. The value found was security linked to continued activity. In the characterization that Brazilian consumers gave to the future of production, the attribute "best quality" formed the central image, again linked to the quality, which, together with the issue of health formed the value safety. This question was not included for the American ones, but the results show that for producers the security value is more related to security in the activity, while for consumers it is related to health and food security.

The analysis of perception concerning production is concentrated only with the end consumers of the two countries because it was not covered by the questions to producers. The central image of the production, for Americans, was formed by oxen, farm and slaughter while for Brazilians was quality again (as well as the central image of the producer, future of production and consumer), and by confinement, which it was surprising since most of the Brazilian production is pasture. It is observed that Americans have a more environmental, production and animal image, while Brazilians again have the requirement image and a production method little explored in the country, which may mean that these consumers have a wrong image concerning production. If the image was pasture it could make a difference since the demand for beef and cow's milk produced on pasture has grown (Pirog, 2004).

The last feature addressed for Brazilian and American consumers was the quality of the beef. For Brazilians, the quality of the image was formed by "origin", that is, to know where the meat came from; "Cutting" of the ox, which depending on the cut is softer, greasy and the taste also differs; "Good", which demonstrates that the quality of the meat has good image; and "conservation". Sensory issues in the evaluation of beef were also significant, which were represented by the attributes appearance, color and smell. The production also appeared, which may be an indication that consumers associate the practice in the production to quality of meat.

CONCLUSIONS

This study showed that there are several similarities and differences between the perception of producers and consumers according to the mentioned aspects. End consumers and Brazilians agreed to consider that the image that forms the quality of beef is good. The common points were mainly related to the values safety and achievement. In the case of producers, although they were the same for consumers in various situations, they were more attached to their survival, revenue and earnings. However, for both Brazilian and American consumer, security is more related to health, not getting product consumption diseases, and the performance related to quality of life. According to McCluskey et al. (2005) attributes of health and safety also have gained importance in the purchasing decisions of consumers.

It is important to stress that the study was limited with respect to the sample size in each location of application. Finally, further research as well as empirical analysis from the results of this exploratory study are suggested, which could address what forms quality for consumers and, in the case of Brazil, seek to understand the reasons why confinement has formed the image of production.

REFERENCES

- Christensen, B.J., D. Bailey, L. Hunnicutt, & R. Ward (2003). Consumer Preferences for Public and Private Sector Certifications for Beef Products in the United States and the United Kingdom. *International Food and Agribusiness Management Review*, 6, 19-39.
- Evans, J. R.; D'Souza, G. E.; Collings, A.; Brown, C.; & Sperow, M (2003). Determining Consumer Perceptions of and Willingness to Pay for Appalachian Grass-Fed Beef: An Experimental Economics Approach. *Agricultural and Resource Economics Review*, 40(2), 233-250.
- Feldkamp, T., T. Schroeder, & J. Lusk (2003). Consumer valuation of steaks with different quality attributes. In *Cattlemen's Day*, Kansas State University Agricultural Experiment Station and Cooperative Extension Service, Report of Progress No. 908: 1-4.
- Goss, J.; Holcomb, R.; & Ward, C (2002). Factors influencing consumer decisions related to natural beef in the Southern Plains. *Journal of Food Distribution Research*, 33(1), 73-84.
- Grunert, K. G.; Verbeke, W.; Kügler, J. O.; Saeed, F.; & Scholderer, J (2011). Use of consumer insight in the new product development process in the meat sector. *Meat Science*, 89, 251-258.
- Grunert, K. G (1997). What's in a steak? A cross-cultural study of the quality perception of beef. *Food Quality and Preference*, 8, 157-174.
- Hoffman, R. Country-of-origin – a consumer perspective of fresh meat. *British Food Journal*, 102(3), 211-229.
- Lancaster, K (1971). *Consumer demand: a new approach*. New York: Columbia University Press.
- Loureiro, M. L.; & Umberger, W. J. Estimating Consumer Willingness to Pay for Country-of-Origin Labeling (2003). *Journal of Agricultural and Resource Economics*, 28(2), 287-301.
- Lusk, J. L., and J. A. Fox. (2000, August). "Consumer Valuation of Beef Ribeye Steak Attributes." In *American Agricultural Economics Association annual meeting*, Tampa, Florida.
- McCluskey, J., T. Wahl, Q. Li, & P. Wandschneider (2005). U. S. Grass-fed beef: Marketing health benefits. *Journal of Food Marketing Research*, 36(3), 1-8.
- Parcell, J. L.; & Schroeder, T. C (2007). Hedonic Retail Beef and Pork Product Prices. *Journal of Agricultural and Applied Economics*, 39(1), 29-46, 2007.
- Pirog, R (2004). *Consumer perception of Pasture-raised Beef and Dairy Products: An Internet Study*. Iowa State University, ISU Business Analysis.
- Puth, G.; Mostern, P.; & Ewing, M (2007). Consumer perceptions of mentioned product and brand attributes in magazine advertising. *The Journal of Product and Brand Management*, 8(1), p. 38-49, 2007.
- Reynolds, T. J.; & Gutman, J (1988). Laddering theory, method, analysis, and interpretation. *Journal of Advertising Research*, 28, 11-31.
- Schwartz, S. H (1992). Universals in the content and structure of values: theory and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, 1-65, 1992.
- Schüller, M (2005). Management of the organizational image: a method for organizational image configuration. *Corporate Reputation Review*, London, 7(1), 37- 53.
- Tuncalp, S (1973). *A study of the relationship between consumers perceived quality judgments about a product based on the extrinsic and intrinsic product attributes and the underlying cognitive structure: An empirical investigation*. (Unpublished PhD Thesis). University of Illinois at Urbana-Champaign, USA.
- Umberger, W. J.; Feuz, D. M.; Calkins, C. R.; Sitz, B. M. Country-of-Origin Labeling of Beef Products: U.S. Consumers' Perceptions. *Journal of Food Distribution Research*, 34(3), 103-116.