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Consumer Preferences and Market Segmentation for Differentiated Beef with Less Environmental Impact

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Abstract

Environmental awareness is increasing globally and this leads to a segment of consumers willing to pay a higher price for products developed under more environmentally friendly conditions. In Colombia, beef production is specifically characterised by extensive management, with low levels of productivity and a significant negative environmental impact. Taking into account this problem, the International Centre for Tropical Agriculture (CIAT) and the University of Cauca in Colombia have worked during the last decade on the development of new alternatives for livestock production, such as improved forages, farming practices and silvo-pastoral systems, which generate significant benefits for the environment (e.g., reduction of greenhouse gas emissions, protection and maintenance of soil fertility, biodiversity conservation) while also improving productivity levels (load capacity and weight gain). However, the implementation of these new technologies often requires high levels of initial investment, which detains producers from adoption. Thus, identifying a segment of consumers willing to pay for beef produced with less environmental impact would create an incentive for producers to invest in new technologies and result in higher levels of adoption.

This study aims to determine the relevant consumer segment for beef produced with less environmental impact. For this purpose, a consumer characterisation will be performed in order to know the preferences, buying habits and consumption of beef and its main substitutes (chicken, fish, pork). As a result, a market segmentation based on variables of socio-economic and demographic character will be conducted. The methodology consists of a descriptive analysis using contingency tables and relative frequencies, and an analysis of market segmentation using a CHAID algorithm and association tests (X²). Information was collected in April 2016 through personal interviews, with a pre-structured questionnaire for consumers directly responsible for buying meat. Research areas are the cities of Cali and Popayan, and the municipalities of El Patía and El Bordo, all in the Colombia Cauca and Cauca Valley Departments. Data analysis will take place in May 2016 testing the hypothesis that level of income, education, age and gender are significant determinants for identifying the segment of potential consumers of differentiated beef with less environmental impact.

Keywords: Beef, CHAID algorithm, Colombia, consumer preferences