

Analysis of the perception of intrinsic and extrinsic attributes of beef in the city of Chillán, Chile

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Introduction: Perception and preference towards meat consumption has been defined as a complex phenomenon. Different authors have investigated consumer perception of meat, and especially beef, in relation to factors such as product safety, environmental impact, including the perception of reduced meat consumption as a solution to climate change and its substitution by alternative protein sources (Grunert et al., 2004; Cordts, Nitzko, Spiller, 2014; Barragán et al., 2018).

Materials and method: An online survey was conducted using the Google Forms® platform. A total of 196 people from the city of Chillán, Chile. This sample was obtained through WinEpi®. A questionnaire with closed questions, divided into 8 sections, was used as an instrument to collect information, and was published on social networks. To determine the importance of different intrinsic and extrinsic attributes in the purchase of beef, a Likert scale with five levels was used; 5: Strongly Agree, 4: Agree, 3: Neither Agree nor Disagree, 2: Disagree and 1: Strongly Disagree. The attributes evaluated were selected based on the work carried out by Arenas et al. (2020). The results were entered into an Excel® spreadsheet, where descriptive statistics were performed with WinEpi® and VassarStats®.

Results and discussion: A total of 235 surveys were obtained, although 12 people stated that they were not in the city of Chillán at the time of answering the questionnaire. Of the remaining 223 (100%), 17 (7.6%) stated that they did not eat meat, so that in the end we worked with a universe of 206 surveys.

The distribution of gender in the population that consumes beef was mostly female, and the age range was distributed in 60% of the cases between 15 and 44 years. Of those surveyed, 66.7% had a technical, university or postgraduate education. The main occupation of the respondents was „full-time worker“. These behaviors were also observed in studies by Schnettler et al. (2004, 2010, 2014) and Barragán et al. (2020). The monthly income range of the respondents was based on the monthly minimum wage as of 2019, with 73.5 % of the total number of respondents earning up to four times the minimum wage. In studies conducted by Barragán et al. (2020), the results were similar, the same range was 73.4% of the total. Regarding the number of people in the family group, 58% of respondents indicated that their family group consisted of 3 or 4 people. A similar situation is observed in the work of Schnettler et al. (2010). Expenditure on beef by the respondents was 65% concentrated between \$10,000 and \$40,000 Chilean pesos per month.

Respondents are mainly concerned about the smell and colour of the meat. These attributes are fundamental at the time of purchase (Kirinus et al., 2014), as they indicate good quality, like that described by Leite et al. (2020).

The purchase motivations that consumers are willing to pay more for this food are food security for the family (93.5%), its appearance and presentation are appropriate at the time of purchase (93.5%). Perceived cues to indicate that beef is safe were label of origin, brand names, appearance of the meat and whether it is fresh or frozen, and perceived cues to indicate that beef is unsafe were expiry dates, foreign origin, level of processing and price too cheap, which are in line with reports by Verbeke et al., 2010.

Conclusion: The majority of the respondents are full-time workers with a family group of 3 to 4 people, and their consumption habits have not changed over time. Respondents with an income of \$603,000 Chilean pesos or less tend to spend 30-40,000 pesos per month on beef consumption. Intrinsically at the time of purchase, they mainly evaluate smell and color, and extrinsically the hygiene of the place where they buy. Finally, the motivation for purchase is the safety of the food for the family group.

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