PROPENSITY TO BUY BRANDED BEEF AMONG GROUPS OF AUSTRALIAN BEEF BUYERS

Luis Emilio Morales[1], Garry Griffith[1,2], Vic Wright[1], Euan Fleming[1], Wendy Umberger[3] and Nam Hoang[1]

[1]School of Business, Economics and Public Policy, University of New England, Armidale.

[2]Cooperative Research Centre for Beef Genetic Technologies, Armidale.

[3]School of Agriculture, Food and Wine Business, University of Adelaide, Adelaide.

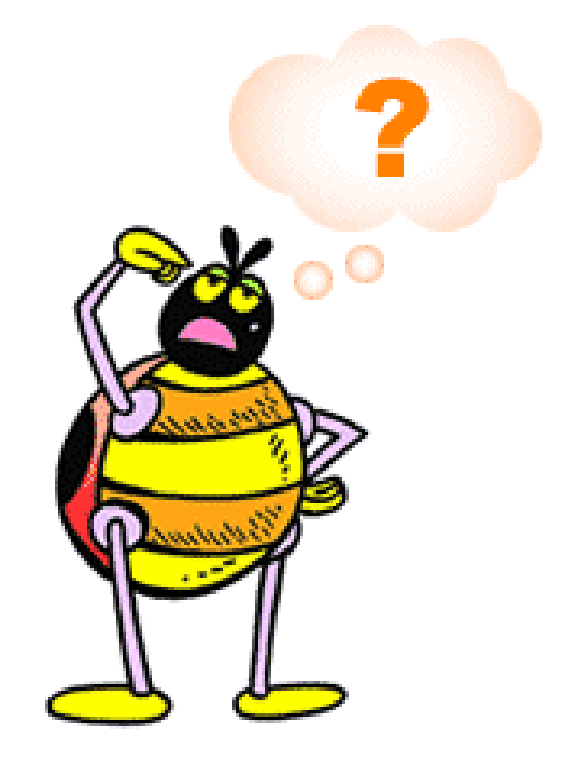
55th AARES Annual Conference

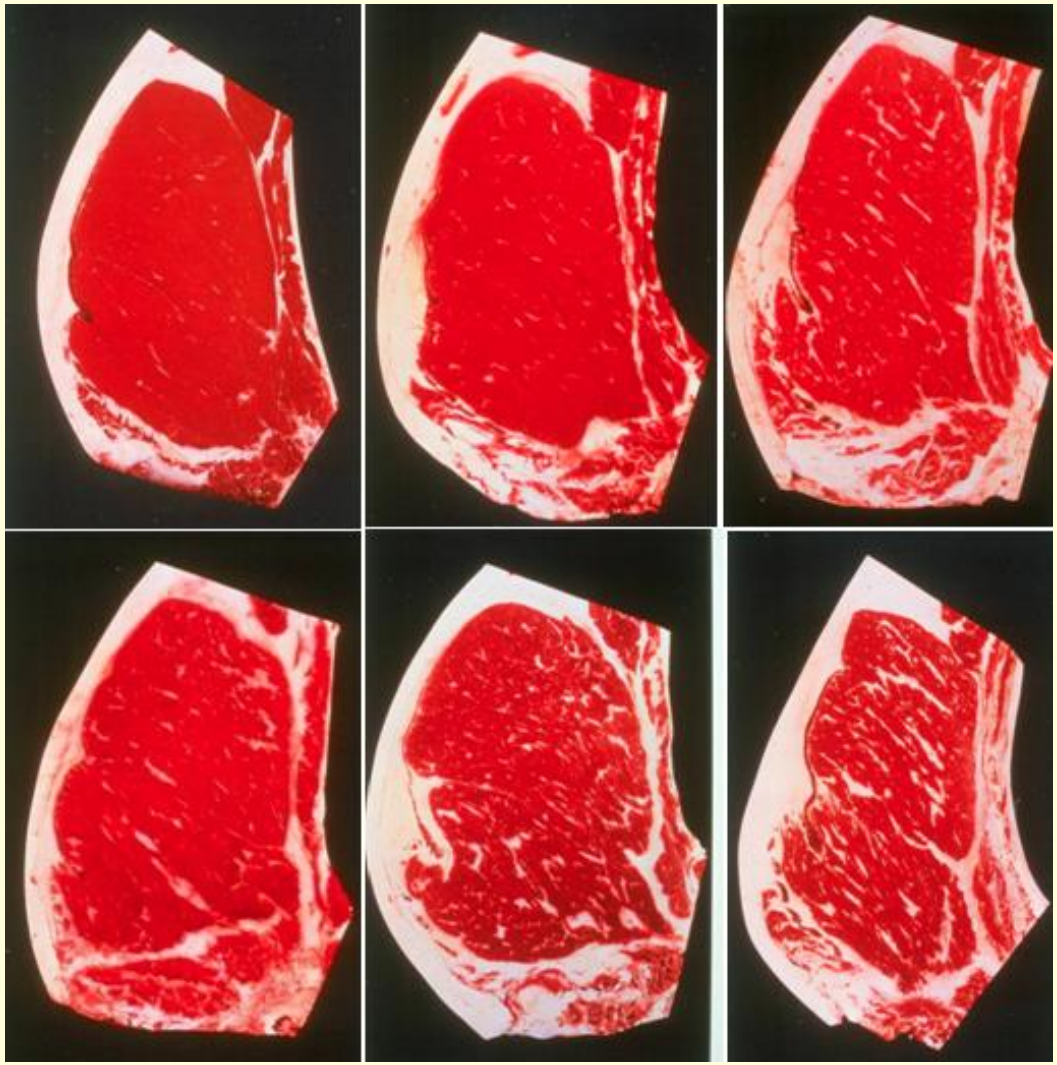
Melbourne, Australia

February, 2011

This is our dream!!

Is it easy to choose your beef?





Introduction

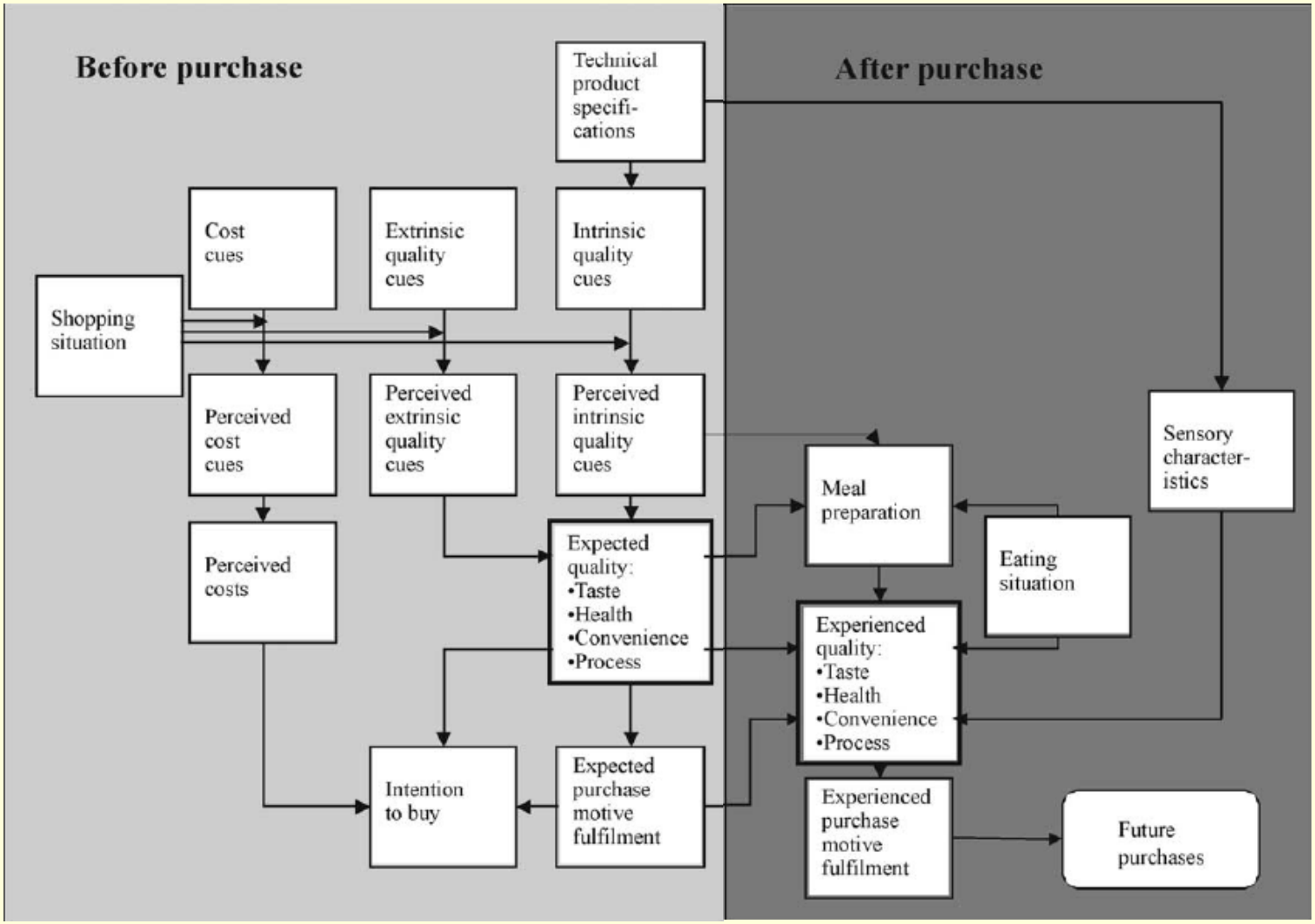
- Australian Beef Industry has evolved in:
  - Processing → A more integrated supply chain.
  - Quality evaluation system → Introduction of MSA grades.
- Research Problem:
  - Eating Quality is guaranteed, but Product Information is **low**.
  - Small companies have survived by focusing on niches (Selling differentiated and branded products).
  - Large Australian beef-producing companies are not selling differentiated and branded products to Supermarkets.
- The challenge for the industry → To develop a wider range of brands on a larger scale. Consumers could recognise different attributes, uses and origins.

  Is this possible?

Meat Quality Perceptions

- Owen *et al.* (2002) demonstrated that price is not always the most important variable (in-store choice).
- In fresh products → Price and Quality are not always related.
- Consumers are under Uncertainty → They use Quality Cues to estimate the Eating and Credence Quality of the beef product.

Total Food Quality Model



Source: Grunert *et al.* 2004.

Consumer Preferences

- Preferences → Specific types of products (such as branded) are more attractive for a particular group of consumers.
- Individual Preferences → Weights associated with each attribute.
- Utility Perceived depends on:
  - Attributes (product).
  - Characteristics (consumer).

$$U_i(x) = \alpha + \beta A_i + \gamma C_i + \varepsilon_i$$

- Then the consumer *i* prefers product x_1 if:

$$U_i(x_1) > U_i(x_0)$$

Objective and Survey Data

- Objective of the study: Determine how the probability to buy branded beef products is affected by:
  - Attributes (product).
  - Characteristics (consumer).
- In January 2010 → Online survey was applied across Australia (n = 1,084).
- Population under analysis → Australian Beef Buyers (Beef Purchase Decision Makers).

Population Under Analysis

Source: Developed by the authors.

Segmentation

- Segmentation was made using most of survey questions (variables) → Agglomerative Hierarchical Clustering.
- 6 consumer segments were found → Groups of beef buyers with different characteristics and attitudes in the Australian Beef Market.
- From them 3 segments were selected as the Potential Target Market.

Discrete Choice Regression Analysis (Logistic models)

- 30 variables were selected → According to the theory and focus group results.
- Categories of variables used in the models:
  - Perceptions about attributes (product).
  - Purchase motivators/attitudinal characteristics.
  - Purchase behaviours.
  - Demographics.

Discrete Choice Regression Analysis (Logistic models) (contd.)

- Dependent variable took value 1 if respondents said that would buy branded beef and 0 otherwise.
- Logistic models were applied for the complete sample, PTM and specific groups in the PTM:

$$L_i = Log\left(\frac{P_i}{1-P_i}\right) = \alpha + \beta A_i + \gamma C_i$$

Complete Sample Model Results

- Beef consumption(-)*.
- Level of agreement that branded beef is worth more than unbranded beef(+)*.
- Previous experience with branded beef(+)*.
- Psychographic factor including ‘information and assistance’(+)*.
- Number of people living at home(-)*.
- Attribute factor including perceptions about ‘healthiness and intrinsic quality cues’(+).
- Places of beef purchase (supermarkets, butchers and farmers’ markets)(+).
- Willingness to pay for an ‘ideal’ cut of beef(+).

Complete Sample Model Results (contd.)

- Membership of clusters 4 and 6 (medium to high income and high quality appreciation) (+).
- Working full time(-).
- Household income(+).

PTM General Model Results

- Beef consumption(-)*.
- Level of agreement that branded beef is worth more than unbranded beef(+)*.
- Previous experience with branded beef(+)*.
- Psychographic factor including ‘information and assistance’(+)*.
- Number of people living at home(-)*.
- Attribute factor including perceptions about ‘freshness, price and packaging’(+)

- Household income(X)???.

PTM Taste Model Results

- Level of agreement that branded beef is worth more than unbranded beef(+).
- Previous experience with branded beef(+).
- Level of agreement that people not buying at supermarkets value high quality food(+).
- Psychographic factor including ‘involvement, beef quality and price as indicator of quality’(-).
- Attribute factors including perceptions about ‘credence attributes’(-), ‘freshness, price and packaging’(+), and ‘marbling and cut’(+).

PTM Health Model Results

- Beef consumption(-).
- Number of people living at home(-).
- Psychographic factor including ‘involvement, beef quality and price as an indicator of quality’(+).
- Attribute factors including perceptions about ‘healthiness and colour’(+) and ‘marbling and cut’(-).

PTM Safety Model Results

- Level of agreement that people not buying at supermarkets value high quality food(-).
- Willingness to pay for an ‘ideal’ cut of beef(+).

Conclusions

- Product attributes and characteristics of beef buyers influence the decision to buy branded beef in Australia.
- Differences between models were found → Complete sample versus PTM general.
- Beef consumption (-), appreciation and previous experience with branded beef (+), interest in information and assistance (+) and number of people at home (-) were significant and had the same sign in both models.
- Household income → Only significant in the Complete Sample Model suggesting that there is no effect when respondents have medium to high incomes.

Conclusions (contd.)

- Differences between specific logistic models in the PTM were found → They vary in buyer characteristics and motivations to buy branded beef.
- High relevance for variations in marbling and cut.
- The industry should study the potential success and cost associated with creating specific products and using different promotion methods (Targeting different sub-segments individually).

Thank You!

PROPENSITY TO BUY BRANDED BEEF AMONG GROUPS OF AUSTRALIAN BEEF BUYERS

Luis Emilio Morales

School of Business, Economics and Public Policy.

University of New England.

Armidale, NSW 2351.

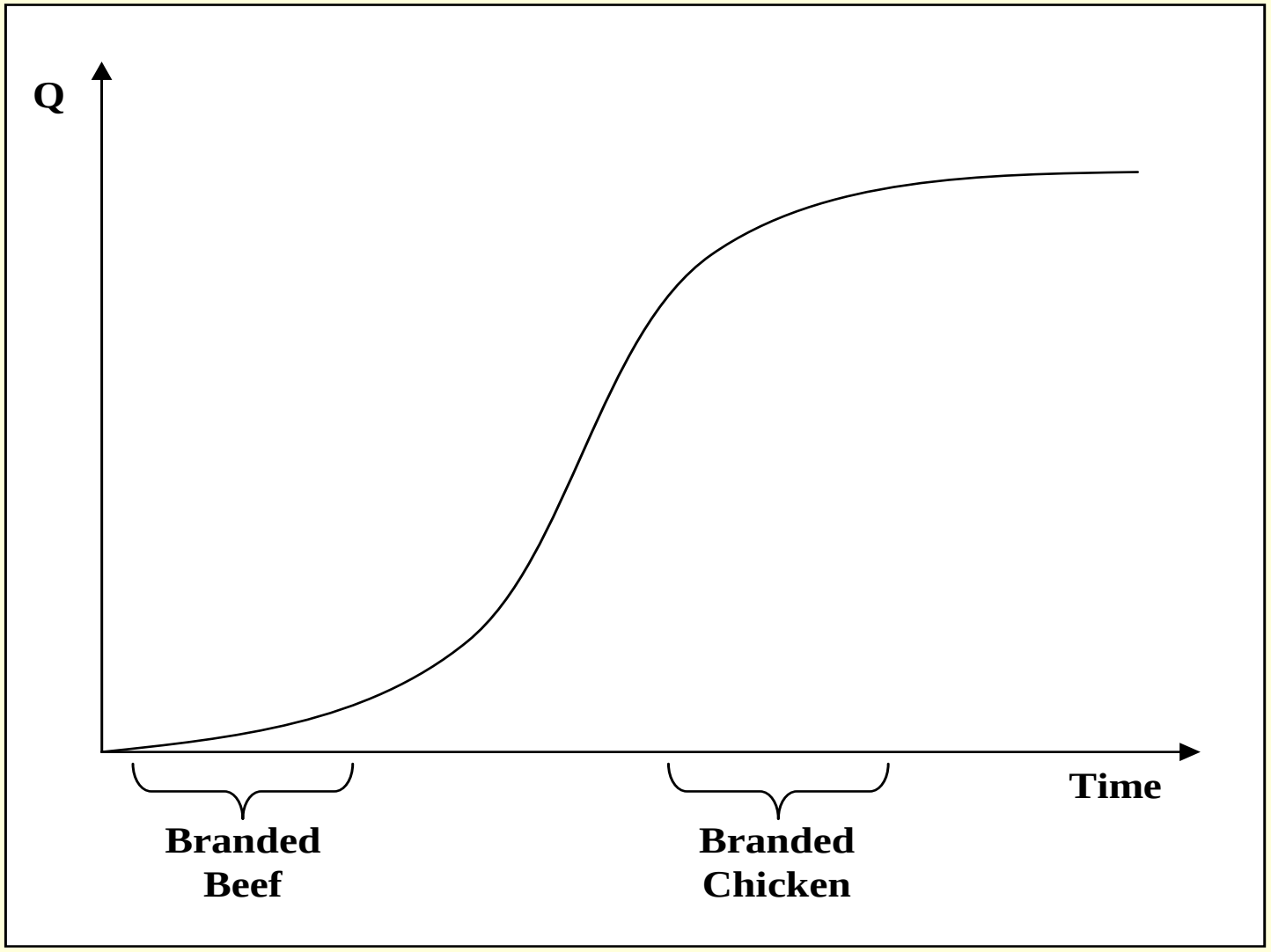
Email: emorales@une.edu.au

55th AARES Annual Conference

Melbourne, Australia

February, 2011

Annex 1: Comparison between Branded Beef and Branded Chicken



Source: Developed by the authors.

Annex 2: Questionnaire's Sections

- General Characteristics (Filters).
- Attitudes Towards Meal Preparation and Beef Attributes.
- Attributes Looked For, Beef Quality Perceptions and Variation Experienced.
- Beef Shopping Preferences.
- Price-Quality Relationship and Branded Beef Perceptions.
- Demographics.

Annex 3: Survey's Characteristics

- Applied Online to Australian consumers:
  - Australian residents and over 18 years old.
- Beef Buyers selection:
  - Beef consumer and responsible of buying beef for household.
- Population under analysis: 9,539,033.
- Sample at least 1,068 people, considering:
  - 95% confidence level
  - 3% margin error
  - 50% response distribution (since we do not have information, pessimistic assumption)
- People included in the frame (database panel) were selected randomly. It is expected they represent the features of Australian consumers.