Universidad Nacional de Mar del Plata   **Facultad de Ciencias Económicas y Sociales**

"CONSUMERS PREFERENCES FOR POTATOES WITH QUALITY ATTRIBUTES IN ARGENTINA"

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  Consumers´perceptions about potatoes quality attributes

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Objective

The aim of this research is twofold:

- To examine consumers' preferences for potatoes quality attributes.

- To identify those factors associated to purchase of potato of better quality.

It becomes important:

For producers to know which quality cues and attributes are relevant and available to consumers.

From consumers' perspective, qualities have to be visible and understandable to reduce uncertainty about the products.

to meet consumers' expectations and preferences

Introduction

The concept of quality has become crucial in the new approaches of Demand Theory

- Consumers derive utility from goods´ attributes.

- Consumers´ choices are definitely conditioned by the uncertainty they perceive with regard to different qualities offered. (Lancaster, 1966)

- Quality is incorporated as an additional variable in food demand functions. (Antle, 1999)

Unified Quality Framework

Caswell *et al.* (2000, 2002) indicate that food quality attributes can be analyzed along a Unified Quality Framework as it is used as the basis of our empirical work.
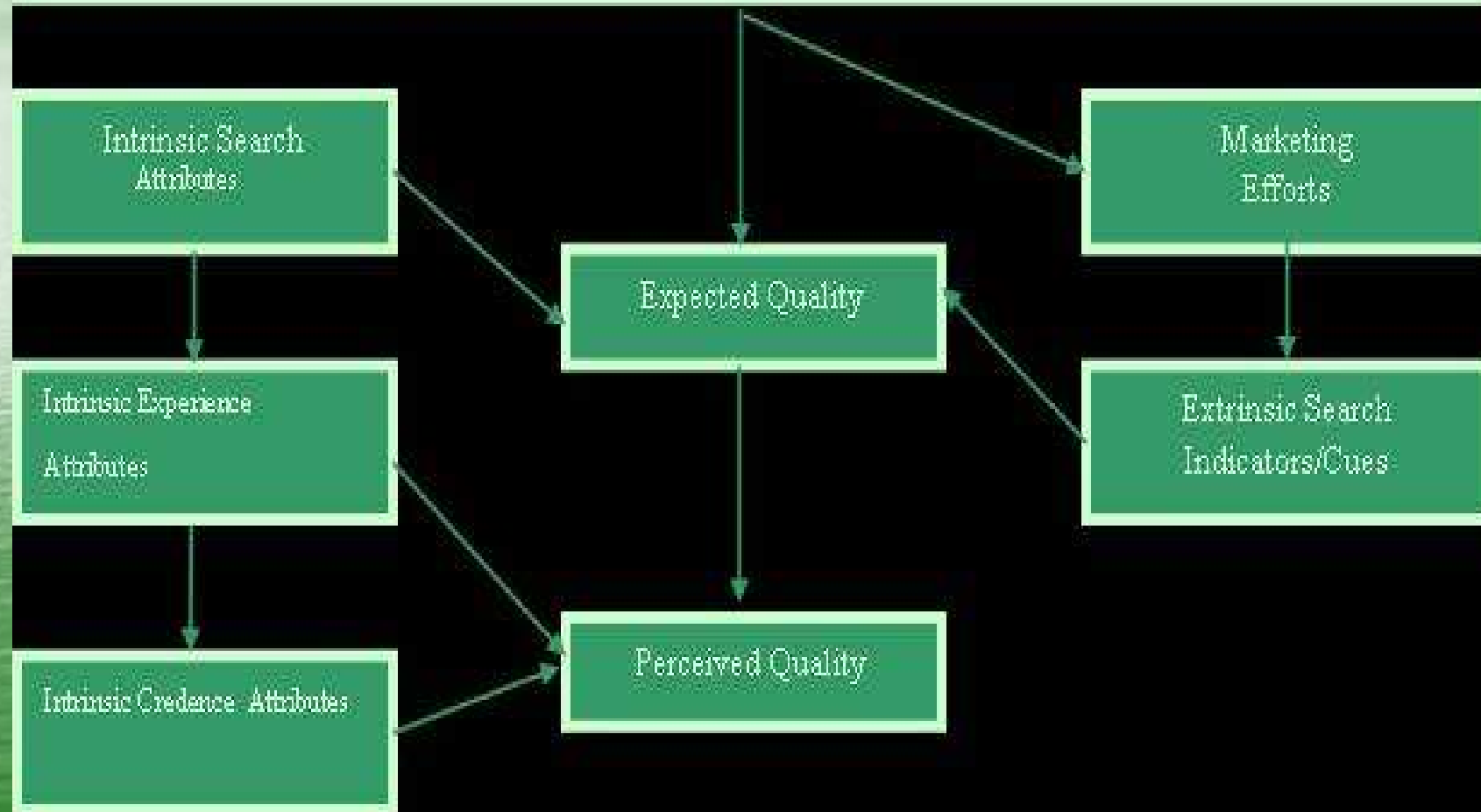
Quality perception involves :
1. Cue acquisitions and categorization.
2. Belief formation of quality .
3. Integration of quality attributes and beliefs.

This process is influenced by personal and situational factors.

Prior Experience; Level of Education; Perceived Quality Risk, Quality-Consciousness

Usage Goals, Other Personal and Situational Factors

Intrinsic Search Attributes

Marketing Efforts

Expected Quality

Intrinsic Experience Attributes

Extrinsic Search Indicators/Cues

Intrinsic Credence Attributes

Perceived Quality

Source: Caswell *et al.* (2000, 2002).

Quality characteristics related to the purchase of potatoes

FOOD SAFETY

Pesticide or drug residues	Intrinsic Quality Attributes
Food safety / Regulation	Credence Quality Attributes
Health	Credence Quality Attributes

NUTRITION

Calories	Intrinsic Quality Cues
Fat content	Intrinsic Quality Cues
Carbohydrates and fiber content	Intrinsic Quality Cues
Protein content and vitamins	Intrinsic Quality Cues

SENSORY

Colour	Extrinsic Quality Cues
Appearance	Extrinsic Quality Cues
Softness	Intrinsic Quality Cues
Smell	Intrinsic Quality Cues
Freshness	Experience Quality Attributes
Variety	Intrinsic Quality Cues
Taste/Flavor	Experience Quality Attributes

VALUE / FUNCTION ATTRIBUTES

Size

Preparation / Convenience

Packaging

IMAGE

Brand   Extrinsic Quality Cues

Price   Extrinsic Quality Cues

Labels   Extrinsic Quality Cues

PROCESS

Local   Credence Quality Attributes

Integrated pest management potato   Credence Quality Attributes

Origin   Credence Quality Attributes

Data

Consumer attitudes and perceptions of potato quality attributes were selected from discussions with consumers, producers and retailers' focus groups.

(Rodríguez *et al.,* 2008)

Household Survey

500 randomly selected households
Mar del Plata City-Argentina, June 2009

Questionnaire -face to face interviews-

Socio-economics and demographics factors

(household income and size, employment status, education, age, frequency of potato shopping and consumption, attitudes towards food safety, perceptions of potato quality, willigness-to-purchase)

Results

Consumers' perceptions about potatoes quality attributes

⇨35% of the interviewers consume potato at least 1-2 times a week.

⇨Consumers mainly prioritize:

Appearance (66%)
Size (62%)
Taste / Flavor (48%)
Skin Color (34%)
Smell (15%)

⇨Bad quality of potatoes:

Scratches
Bruises
Sprouted
Gummy
Dirty

⇨All the respondents have declared their preferences for buying potatoes at greengroceries and supermarkets shops.

⇨The average score given by consumers to risk in consuming potatoes with pesticide and fertilize content is high (8 points).

⇨A high percentage of households (34%), are willing to pay a 28% more and only 19% of households are willing to pay a 57% more -*per* kilo of fresh potatoes of better quality-.

⇨Consumers with **higher education** level are worry about health, food nutritional content and pesticide usage in the production process. **Price is not relevant**

⇨A great proportion of respondents, who have reached a **lower educational level** consider that food quality controls are satisfactory.

Empirical Analysis

Ordered Logit Model

Variables

DEPENDENT VARIABLE (Ordinal) Consumers´willingness to buy potato

Frequency

0 = less than once a week-2 times a week (35%); **1** = 3-4 times a week (49%); **2** = 5 and more times a week (16%)

INDEPENDENT VARIABLES

Quantitative Explanatory Variables

Household size	Average = 3 persons
Age	Average = 50 years old
Balanced Diet	Average = 7 points
Potato Fattening	Average = 5 points
Preparation / Convenience	Average = 8 points
Price	Average = US dollar 0.46

(exchange rate, June 2009, 1 US dollar = 3.80 Argentinean Pesos)

Categorical Explanatory Variables

Educaction	**0** = Modest education (61%); **1** = High education (31%)
Size	**0** = No (38%); **1** = Yes (62%)
Skin	**0** = No (66%); **1** = Yes (34%)

Estimation Results for Ordered Logit Model

	VARIABLES	COEFFICIENT SIGNS	STD. ERROR	SIGNIFICANCE
THRESHOLD	FREQUENCY (= 0)*	+	0.690	0.059
	FREQUENCY (= 1)***	+	0.713	0.000
LOCATION	HOUSEHOLD SIZE***	+	0.060	0.000
	AGE***	+	0.006	0.010
	BALANCED DIET***	+	0.036	0.009
	POTATO FATTENING*	-	0.026	0.060
	PREPARATION / CONVENIENCE**	+	0.040	0.034
	PRICE*	-	0.175	0.003
	EDUCATION (= 0)**	+	0.217	0.017
	EDUCATION (= 1)	0[a]		
	SIZE (= 0)**	-	0.190	0.017
	SIZE (= 1)	0[a]		
	SKIN COLOUR (= 0)**	-	0.195	0.030
	SKIN COLOUR (= 1)	0[a]		

Significance level: ***$p<0.01$; **$p<0.05$; *$p<0.10$ n = 471 households

a: this parameter is redundant Link function: logit

The model fits adequately.

The signs of coefficients are all as we expected, and they are suggesting that...

⇨... households with high number of members have a higher probability to consume fresh potato more frequently.

(HOUSEHOLD SIZE)

⇨... older respondents consume more frequently fresh potatoes than younger respondents.

(AGE)

⇨... households considering potato as a relevant food for a balanced diet are likely to consume more frequently fresh potato.

(BALANCED DIET)

⇨... there is an inverse relationship between frequency of consumption and the belief that potato helps to get fat.

(POTATO FATTENING)

⇨ **... those consumers considering potato as ´a food easy to prepare meals and also easy to clean´ have a higher probability of consuming this good more frequently.**

(PREPARATION / CONVENIENCE)

⇨ **... households paying higher average potatoes prices are likely to consume fresh potato less frequently.**

(PRICE)

⇨ **... low educated consumers have a higher probability to buy fresh potatoes more frequently.**

(EDUCATION)

⇨ **... those who do not care about potato size and skin colour have a low probability to consume fresh potatoes more frequently.**

(SIZE and SKIN COLOUR)

Final Remarks

⇨ Consumers want to meet their expectation for size, colour, texture, and nutritional value, when purchasing potatoes.

⇨ In Argentina, there is a little consumer recognition of potato varieties and their culinary uses. This lack of information creates an excellent opportunity for market niche developing.

⇨ Producers and stakeholders should give to consumers something to look for and tell them they have made the right decisions.

⇨ Information provided in food labels is an instrument to improve consumers´ perception of potato quality and also inform to those consumers that are willing to buy and pay a price premium for this product.

Thanks for your attention!!!

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