Consumers' Perceptions about Food Quality Attributes and Their Incidence in Argentinean Organic Choices

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Abstract: The objective of this paper is to analyze consumers' perceptions about risk and quality attributes of food consumption; and to evaluate the incidence of these factors when buying organic products in the Argentinean domestic market. Data derives from a food consumption survey on organic and non-organic consumers conducted in Buenos Aires City, Argentina, in April 2005.The Lancaster model (1966) provided the theoretical basis. The results yielded by the estimated logistic model suggest that consumers with higher educational level, who eat healthy food, and consider food control organisms as "inefficient" are more likely to buy organic products. A high percentage of consumers read and trust label information in Argentina. This has interesting policy implications to promote differentiated and high value products, and to reduce information asymmetries.

Key words: Food safety, quality attributes, consumers, organics, Argentina.

1 Introduction

1.1 Food Quality and Consumers' Concerns

Globalization, growing incomes, fluctuating relative prices, urbanization and migration are leading consumption behavior to high value agricultural products in many developed and developing countries. These factors require changes both in food technology and food distribution systems. Besides, the fulfillment of labeling and traceability of origin requisites, as determined by optimum agricultural practices, are expected to become more stringent than before [1].

There is an increasing consumers' concern for food safety and quality and, at the same time, there has been a significant market increment in differentiated or high value products consumption, including organic products. The goal of food consumption is not only body nourishment but also heath improvement over lifetime. If the food available is not safe or its consumption does not enhance health, it does not contribute to food security. In this sense, it was concluded that "food safety does not jeopardize food security; both act together to enhance human health" [2].

Quality uncertainty has played a key role in literature about safety and products liability. From all the articles dealing with quality and uncertainty, the most relevant demonstrates that, although suppliers can determine quality, by incurring greater costs, consumers cannot test quality before purchase, and then bad goods tend to drive out good ones [3]. Consumers will purchase products depending on their perceived quality expectations. The attributes of quality-nutritional content (i.e., safety attributes of food, convenience, place and manner of product production, including environmental production processes) are all valued according to the consumers' subjective perception.

Some consumers look for food safety and are willing to pay higher prices for healthy and nutritive products, since they increase their utility level reducing health risks. However, consumers are unable to ascertain food safety before purchase, being the

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most important constraint to economic efficiency in the production and marketing of food safety. Both food safety and nutrition are important factors in food markets; however consumers are not always capable of determining the extent in which a purchased product has met or will eventually meet their preferences. "The information problem faced by consumers undercuts economic incentives for producers to produce a safer product. Less-safe food drives out safer food, and the government finds itself called upon to intervene in the market to guarantee an acceptable level of food safety" [4].

1.2 Organic Overview in Argentina

Throughout these last years, organic agriculture has undergone a remarkable expansion due, among other things, to the greater interest shown by consumers aware of food safety issues involving real or perceived quality risks [5].

In Argentina, key factors such us very good agro-ecological conditions, intensive labor requirements, and increasing export perspectives for these differentiated foods, could transform organic production into a profitable activity for farmers, distributors and retailers, thereby improving the development of our regional economies.

Argentina has developed national organic regulations which have turned it into the First Third Country to adapt its national regulations to the European Union requirements (1993).

It has also implemented a private certification system accredited by SENASA (National Service of Agrifood Quality and Safety) and carried out significant public research actions through certain technological institutions such as the INTA (National Institute of Agricultural Technology) and private and state universities. Still information scarcity remains a gap to be bridged as it confines supply and demand quantification and restrains potential market growth [6].

In 2008, 96 percent of the Argentinean total organic production was destined to the foreign market. The domestic market accounted for as little as the remaining 4% [7]. The largest marketing export volumes are grains: bread wheat, rice and maize, and oilseeds. Other processed organic products such as olive oil, sugar, concentrated juices, honey and wines, notwithstanding their low production volumes, are also attractive export alternatives. The European Union imports more than 80% of Argentinean organic products; the remaining 20% is exported to the United States. The former was the main importer of organic grains, oilseeds and fresh fruits. Exports of organic grains, oilseeds and processed products of plant origin to the United States were also significant. Participation of other markets such as Canada, Ecuador, Japan, Norway, Israel and Russia has been increased.

On the other hand and as in previous years, the domestic market still remains a minor destiny of production. Cereals and oils are also central products due to their high volume, and vegetables are noteworthy because of their diversity.

The organic sector in Argentina has grown thanks to its own efforts. No governmental direct subsidies or economic aids are provided to this sector. Some public funding for research and teaching activities is available, and other official export agencies help producers attend international fairs.

Along these lines, the INTA fosters key public research actions to develop new technologies and train farmers and the SAGPYA (National Agricultural Office) has implemented the National Program for the Development of Organic Production (PRONAO). This program aims at promoting organic product on a domestic basis, increasing the number of producers committed to this activity, developing new markets, and creating well-informed consumers.

In the Argentinean domestic market, many consumers are willing to pay higher prices for healthy products, i.e. organics, because they increase their utility level by reducing perceived health risks. Information about the quality attributes of food products, i.e., safety attributes; convenience; place and

manner of product production, environmental concerns, is imperfect for consumers, producers, governmental regulators, and researchers [8]. This is particularly true when production process attributes cannot be readily observed or tested, and the health effects of those products are difficult to determine once they have been consumed.

The main restrictions to domestic demand growth are the lack of information available to consumers; organic prices over those of conventional foods; and the erratic supply oriented to domestic market, as organic products' main target is the foreign market. Besides, many consumers do not trust the certification proceedings carried out by private certification agencies [6].

Despite the relevance of understanding consumers' awareness of food safety, empirical researches conducted in Argentina are limited. Therefore, the objective of this paper is to analyze consumers' perceptions about the risk and quality attributes of food consumption; and to evaluate the incidence of these factors when buying organic products in Argentina.

2. Theoretical Framework

The increasing awareness of consumers of food security is related to some potential risks associated to food production and processing technologies [5]. Information is usually considered a public good and, consequently, it is undersupplied to the market [9].

Consumers' trust in private and public institutions responsible of supplying information about food quality, as well as their reliance on different stores and distribution channels, is affecting their consciousness and perception of safety procedures in the agrifood systems.

Along the concept of food quality [10], the quality attributes of food products can be analyzed in three different dimensions:

(a) Intrinsic/extrinsic: Quality perception influenced by attributes that are intrinsic to the product itself, e.g. pesticide residues, hormone content, or by quality indicators that are extrinsic to the product (e.g. brand name);

(b) Information environment: The information about the quality of a given product results from the buyer's search nature (i.e., the buyer can judge quality by assessing the product prior to purchasing it, e.g. color), experience nature (the buyer must try the product in order to evaluate its quality, e.g. taste), or credence nature (the buyer cannot judge product quality even after purchasing and trying it, e.g. pesticide residues);

(c) Vertically/horizontally differentiated: If all buyers share the same quality ranking or appraise it differently.

The consumers' perceived quality is influenced by expected quality, intrinsic experience and intrinsic credence attributes. The relative importance of the factors influencing organic food purchase varies from country to country, and it has been documented by several authors.

Some studies have found pesticide residues in food to be more important than environmental issues when it comes to buying organic food products. Even though the last is more important in some countries like Germany [11], it is not considered that relevant for organic consumers in Argentina [12].

Other researchers reported that higher income earners and younger people were more willing to purchase integrated pest management produce than lower income earners and older people [13]. In a Californian study, organic food buyers were found to be older than non-buyers [14].

In a Norwegian study, it was revealed that interest in buying organic food was not related "only to economically well off consumer groups" [15]; while other studies found that income and age were not relevant factors in the distinction between organic food buyers and non-buyers in America [16].

General speaking, Danish consumers are acquainted with organic products and trust labeling and certification programs, somehow explaining the highest *per capita* consumption figures recorded if compared to those in other European countries [17].

Earlier studies performed in Buenos Aires city[1], Argentina, concluded that Argentineans are worried about healthy and nutritive food, unsafe productive processes and health care, which are key factors to organics consumption. Yet consumers are unaware of environmental issues. Taste and nutritive attributes are other relevant factors mentioned as well [18].

Results from focus groups studies conducted in four different Argentinean cities (Buenos Aires, Mar del Plata, Mendoza and Córdoba) demonstrated that consumers do not trust organic certification bodies, and they recognize the lack of information available in the domestic market regarding organic food. They usually link organics with local, homemade and handmade food, and, therefore organic producers and retailers constitute important credibility sources [19].

Several researches have focused on the obstacles hindering organic food demand expansion. Higher prices and products shortage in supermarkets should be mentioned as the most relevant ones [20-22], together with the degree of relative satisfaction to conventional food organic products offer to consumers, and the level of information about food quality they have access to [23-25].

The Lancaster model (1966) provided the theoretical basis for the use of products attributes and characteristics to analyze the incidence of these attributes in consumers' choices [26]. And from a more recent research it was derived an expected indirect utility function dependent on income, prices, risk perceptions and socio-demographic characteristics [27].

3. Analytical Procedures

Following Agresti [28] for a binary response Y and explanatory variables X (continuous or categorical ones), let

$$\pi(x) = P(Y = 1 \mid X = x) = 1 - P(Y = 0 \mid X = x) \quad (1)$$

The logistic regression model is

$$\pi(x) = \exp(\alpha + \beta x) / [1 + \exp(\alpha + \beta x)] \quad (2)$$

Equivalently, the log odds, called the *logit*, has the linear relationship

$$\text{logit}[\pi(x)] = \log[\pi(x) / 1 - \pi(x)] \quad (3)$$

Eq. 3 equates the logit function to the linear predictor.

The Logit model is especially appropriate when the issue of interest is to describe the odds of success

$$[\pi(x) / 1 - \pi(x)] = \exp(\alpha + \beta x) = e^{\alpha} (e^{\beta})^x \quad (4)$$

This exponential relationship provides an interpretation for β: The odds increase multiplicatively by e^{β} for every one-unit increase in x.

4. Survey Design and Data

Data used in this study derives from a food consumption survey on organic and non-organic consumers conducted in Buenos Aires City, Argentina, in April 2005. The 300-consumer sample was based on age and gender local distribution pursuant to the last National Population Census in Argentina (INDEC, 2001) [29], for respondents aged 18 or above with a medium-high socio-economic level, as it is defined by the Argentinean Marketing Association (AAM).[2]

The survey was carried out in the largest supermarket chains (Coto, Disco, Jumbo, Norte and Wal Mart) and in an important specialized organic store (La Esquina de las Flores). The respondents were surveyed upon leaving the stores.

In this type of convenience samples, the probability of being selected is unknown. But with a theory-based model, using relatively balanced explanatory variables, these samples could be used to obtain model-based inferences [30-32]. The selection of this sampling method results from the difficulty to spot the target population, i.e. organic food consumers.

Table 1 shows how representative the sample is in terms of the demographic structure of Buenos Aires

[1] Buenos Aires, the capital city of the Republic of Argentina, is the most densely populated city and also concentrates most trading activity in the country. URL: http://www.aam-ar.com city population according to gender and age.

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Table 1 Sample representativeness in terms of Buenos Aires city demographic structure according to gender and age (18-87 years old).

Comparison between survey sample[a] and population census in Buenos Aires City

Demographic characteristics	Categories	Relative frequency	
		Representation in the survey sample	Representation in Buenos Aires City
Respondent's gender	Male	32%	44%
	Female	68%	56%
Respondent's age	18-24	15%	14%
(in years)	25-34	19%	20%
	35-49	26%	24%
	50-59	15%	15%
	60-87	25%	27%

Proportion of Buenos Aires city population in relation to Argentinean overall population

	Buenos Aires City	Argentina	
Population	2,205,191	24,090,463	9%

(a) n = 301.

Source: Consumption survey, Buenos Aires City/2005 and Population Census in Argentina (INDEC/2001).

4.1 Sample Characterization

The socio-economic sample characterization displayed in Table 2 shows that sixty eight percent of the respondents were female, as expected, since grocery shopping is mostly a female activity in Argentina.

The average sample age was 44, and the highest absolute frequency ranged between 35 and 49 years, and 60 years or more (26% and 25% of the total sample, respectively).

Thirty four percent of the respondents mentioned that they usually consumed organic food. These consumers were called "organic consumers". The remaining 66%, who stated to have never consumed organics, were called "non-organic consumers".

Thirty eight percent of the total sample stated that their household monthly income was U$S 500 or less per month, while the remaining 62% declared it was above U$S 500. Despite the fact that 67% of organic consumers earned above U$S 500, non-organic consumers were almost equally distributed when considering these household's income levels.

Regarding educational level, 20% of the respondents had not completed high school, and more than a half had gone into further education, even though they had not graduated. Twenty nine percent held a university or postgraduate degree. The highest proportion of respondents who had reached a university or postgraduate degree was included in the organic consumers group (36%).

4.2 Data Collection

The questionnaire contained both close- and open-ended questions displayed in three sections. In the first one, questions referred to organic, natural and fresh food consumption; also to purchasing frequency, and to reasons for buying these products.

The second section was designed in order to collect consumers' opinions concerning several issues linking diet and health. Questions dealt with: eating habits; reasons behind taking care in meals; risks perceptions derived from hormone, pesticide and preservers present in each of the selected products; factors of trust such as brands, food labels, product origin, confidence in stores where respondents used to do their food shopping; search information, food products advertising and promotion; respondents' opinions about food control and regulatory bodies functioning; their preferences regarding private or public regulation systems; and perceived differences between organic and conventional food.

The last section of the questionnaire collected socio-economic data, including income ranges. Respondents had to indicate the range in which the household monthly income fell. As seen in Table 2, respondents were divided into two income levels: more than U$S 500 and U$S 500 or less.

Table 2   Gender, age, income and education in the sample[(a)] for both organic and non-organic consumers.

Demographic and socio-economic characteristics	Total sample	Organic consumers (34%)	Non-organic consumers (66%)
Respondent's gender (%)			
Female (%)	68	66	69
Male (%)	32	34	31
Respondent's age (in years)			
18-24 (%)	15	16	15
25-34 (%)	19	19	20
35-49 (%)	26	27	26
50-59 (%)	15	16	15
60 or +60 (%)	25	23	23
Respondent's household monthly income [(b)]			
≤ U$S 500 (%)	38	33	45
> U$S 500 (%)	62	67	55
Respondent's educational level			
Unfinished high school (%)	20	10	24
Unfinished university (%)	51	54	50
University or postgraduate degree (%)	29	36	25

(a) n = 301; (b) For comparative purposes, notice that in April 2005, the poverty threshold for an Argentinean citizen living in Buenos Aires city was of U$S 83.35 per month. Therefore, a 4-member family with 2 children needed U$S 285 monthly to achieve a minimum standard of living (INDEC, 2005).

Exchange rate: 1 U$S = 3 Argentinean Pesos ($) (April 2005).

Source: Author's Calculation, Consumption survey, Buenos Aires City/2005.

A total of 261 completed responses were finally included in the data set of this study.

5. Results

Some of the attributes included in this study were selected from other authors' findings [13-33] but most of them come from discussions with consumer focus groups concerning issues related to unsafe productive processes, labels, certification and the role government plays in food system regulation [19]. The main conclusions drawn from such focus group studies were as follows:

(1) Consumers are worried about healthy and nutritive food, unsafe productive processes and health care;

(2) Consumers recognize the lack of credibility certification bodies deserve as well as the scarcity of information about organic food available in the domestic market.[3]

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[3] The focus groups studies were conducted during 2003, 2004 and 2005 in four different Argentinean cities that were chosen because of their similar consumption patterns and proximity to production regions.

5.1 Consumers' Perception about Food Quality Attributes

As it can be seen in Table 3, 67% of the 261 respondents were worried about their health, 79% take care in meals (i.e., they used to eat healthy and safety food), 57% perceived there is a high health risk derived from hormones and pesticides included in food. Food nutritional content as a quality attribute was mentioned by a 56%. A relative high percentage (64%) did not mention production method as a food quality attribute; and a 62% did not mention the product origin as a quality attribute.

The questions related to consumers' perceptions about information demonstrated that 91% of the respondents are used to reading food labels before or during their purchases. 53 percent feels satisfied with the information provided by food labels; and 53% would be willing to buy organics if they have lower prices.[4]

75 percent of consumers agree to the need of a food quality regulation system and a 56% considers that the

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[4] Price premium between conventional and organic food was analyzed by collecting prices data at the same stores where the survey was conducted.

Table 3 Consumers´ perceptions linked to subjective, search and regulation factors.

Subjective factors		Relative frequency
Worried about health care	Worried	67%
	Otherwise	33%
Take care in meals	Take care	79%
	Otherwise	21%
Perceived risks derived from hormones and pesticides contents	Very risky	57%
	Otherwise	43%
Nutritional content as a food quality attribute	Mentioned	56%
	Otherwise	44%
Productive method as a food quality attribute	Mentioned	36%
	Otherwise	64%
Product origin as a food quality attribute	Mentioned	38%
	Otherwise	62%
Search factors		**Relative frequency**
Used to reading food labels	Before/during purchasing	91%
	Otherwise	9%
Food labels information is satisfactory	Yes	53%
	Otherwise	47%
Trust in food store	Very trusty	55%
	Otherwise	45%
Trust in product origin	Very trusty	56%
	Otherwise	44%
Price as a food quality attribute	Mentioned	16%
	Otherwise	84%
Willingness to buy organic if cheaper	Yes	53%
	Otherwise	47%
Regulation factors		**Relative frequency**
There must be a food quality regulation system	Yes	75%
	Otherwise	25%
Regulation system must be private, not public	Yes	49%
	Otherwise	51%
Food control system is inefficient	Yes	56%
	Otherwise	44%

Source: Author's Calculation. Consumption survey (n = 261), Buenos Aires City/2005.

food control system is inefficient. The question about whether regulations should be private and not public did not show a significant difference (49% said "yes" (it should be private), 51% said "no" (it should not be private)).

5.2 Empirical Analysis Based on a Logit Model

A Logit Binomial Regression Model was applied to explore factors affecting organic food consumption. The estimates were obtained using SPSS (version 11, 2001). The selected variables are listed in Table 4.

As a preliminary step, the estimated model was as follows:

Logit $(\pi) = \alpha + \beta_1$ CAREMEALS $+ \beta_2$ LABELS $+ \beta_3$ REGULATION $+ \beta_4$ WTBCHEAPER $+ \beta_5$ EDUCATION $+ \beta_6$ INCOME $+ \beta_7$ GENDER $+ \beta_8$ AGE

Where:

Consumption: Dependent variable-Y- (Table 4);

Caremeals, Labels, Regulation, Cheaper, Education, Income, Gender, AGE: Explanatory variables -X_i, i = 1, … 8. (Table 4);

π: Probability of success for dependent variable = 1 if organic is consumed in the respondent's household.

α: Intercept;

β_i: Coefficient -i = 1, … 8.

However, after running a preliminary model and applying the Wald Statistic and the Likelihood-Ratio Statistic, the INCOME, GENDER and AGE variables were not statistically significant (p-values > 0.10). Therefore, they were disregarded. The final model's results are displayed in Table 5.

Table 4   Description of Model's variables.

Dependent variable		Categories
Consumption	If organic food is consumed in the respondent's household	1 = Yes, 0 = Otherwise
Explanatory variables		Categories
Care meals	If household members used to eat healthy food	1 = Yes, 0 = Otherwise
Labels	If information provided by food labels of certain specific items (dairy products, flours and cereals, chicken, red meat) is considered as ´very reliable´ from the respondent point of view	1 = Yes, 0 = Otherwise
Regulation	If the respondent considers that food control bodies are ´inefficient´	1 = Yes, 0 = Otherwise
Cheaper	If the respondent would be willing to buy organics if they were cheaper	1 = Yes, 0 = Otherwise
Education	Highest education level reached by the respondent	1 = High School or higher, 0 = Otherwise
Income	Monthly respondent's household income	1 = Above US$ 500, 0 = Otherwise
Gender	Respondent's gender	1 = Female, 0 = Male
Age	Respondent's age	1 = Above 34 years old, 0 = Otherwise

Table 5   Results from the estimated model.

Variable	Parameter estimate (β)	Std. error	Wald statistic	Sig.	-2 (L_0-L_1)	Sig.	Odds ratio (e^β)
Caremeals	1.250	0.385	10.551	0.001	11.930	0.0006	3.489
Labels	-0.875	0.297	8.663	0.003	9.020	0.0027	0.417
Regulation	0.966	0.295	10.704	0.001	11.110	0.0009	2.627
Cheaper	1.011	0.293	11.900	0.001	12.520	0.0004	2.748
Education	1.010	0.414	5.952	0.015	6.530	0.0106	2.746
Intercept	-3.117	0.571	29.766	0.000	39.370	<0.0001	0.044

Notes: Cut-off = 0.50.

Source: Consumption survey, Buenos Aires City/2005.

The odds-ratio are suggesting that those consumers who:

Frequently eat healthy food; present 3½ more chances of consuming organic food. (Caremeals)

Consider the information provided by food labels of certain specific products (dairy products, flours and cereals, chicken and red meat) as 'very reliable' have less than a half chance of consuming organic food. (Labels)

Consider food control organisms as 'inefficient' have almost 3 times more chances of consuming organic food. (Regulation)

Would buy organic products if they were cheaper have almost 3 times more chances of consuming organic food. (Cheaper)

Have got high school education or more, have almost 3 times more chances of consuming organic food. (Education)

Pearson's Chi-Square Statistic and Hosmer and Lemeshow Test indicate an adequate fit for the final model (Table 6).

Table 6   Model's Goodness of fit.

Omnibus test of Model coefficients		
Chi-square	Value	48.744
	d.f.	5
	Sig.	0.000
Hosmer & Lemeshow	Value	6.567
	d.f.	8
	Sig.	0.584
Model's predictive power		
Concordance index	Area	0.745
	Sig.	0.03
Overall percentage		70.1%
Model Summary		
-2Log Likelihood		297.72
Cox & Snell R^2		0.17
Nagelkerke R^2		0.23

Source: Consumption survey, Buenos Aires City/2005.

Ryan [14] indicated that the R^2 computed as lineal regression should not be used in logistic regression, at least not when the possible values of the dependent variable are 0 and 1. Therefore, alternative forms of R^2 for this binomial logit model are Cox and Snell's R^2 (0.17) and Nagelkerke's R^2 (0.23), presented in Table 6.

The overall predicted power of the model is 70%. Diagnostic tests are commonly characterized by their true positive (sensitivity) and true negative (specificity) classification rates, which rely on a single decision threshold to classify a test result as positive [35]. The Receiver Operating Characteristic (ROC) curve, which is presented in Fig. 1, provides a complete description of test accuracy.

The ROC curve is a graph of the false positive and true positive rates obtained as the decision threshold is varied, and it visually depicts the performance and performance trade-off of a classification model.

The diagonal line from the bottom left-hand corner to the top right-hand corner denotes random classifier performance. A classification model mapped onto this line produces as many false positive responses as it produces true positive responses. Because of this, the concave shape connecting the points (0, 0) and (1, 1) that is shown in Fig. 1, according to the estimated logit model- indicates a reasonable classifier. These results are consistent with the value for the

Fig. 1 The ROC Curve.
Source: Author's calculation. Consumption survey, Buenos Aires City/2005.

Concordance Index (0.745 > 0.50) and the model overall predictive power (70%), presented in Table 6.

6. Conclusions

Just as in the rest of the world, organic products consumption in Argentina is explained, to a large extent, by their better quality -in terms of packaging, nutritional benefits and nutritional information-, their market availability—especially for their continuity and variety of supply available—and by the degree of credibility of the standards applied and certification systems. Yet, these products prices as well as the purchasing power consumers have are also central explanatory factors.

The results of this study were obtained for the main Argentinean consumption and domestic distribution centre, Buenos Aires City, where the highest absolute and relative income levels are evidenced. They suggest that most Buenos Aires´ citizens with particular lifestyles, an upper or middle income, working long hours and doing their purchases mainly in supermarket chains are worried about health and eat healthy food. A high percentage (91%) of consumers are used to reading labels before o during purchasing, 56% consider the nutritional content as a food quality attribute and 53% consider that food labels information satisfies doubts about food contents, particularly in the most important food groups (red meat, dairy products, flours and cereals) included in the Argentinean diet.

Although 75% agree that a food quality regulation is essential, 56% consider that the food control system is inefficient. According to the logit model estimation, the REGULATION variable plays an important role in explaining organic consumption. Argentineans seem to be "Europeanized" in so far as they place no trust in the regulatory system's ability to monitor and to assure food safety.

The empirical results yielded by the logit model suggest that the consumers with higher educational level, who eat healthy food, and consider that food
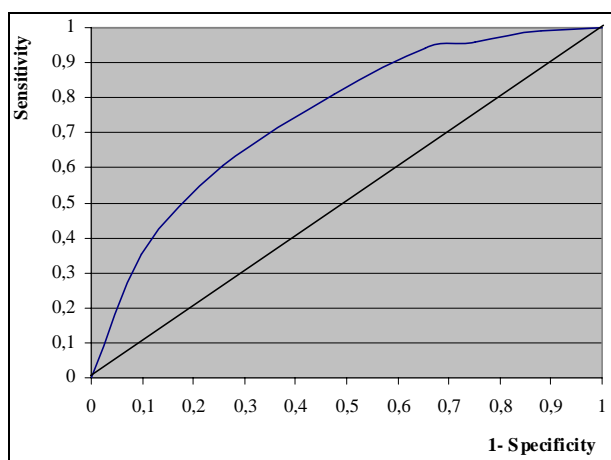
control organisms are "inefficient", are more likely to buy organic products. According to these results, educated people seem to be more exposed to diet and health information, and can better understand and process it.

These consumers know what organics stands for, they perceive products scarcity and irregular availability in the market, and they would be willing to increase consumptions if these products were cheaper. The price premiums in the market depend on the product type but, regarding the scrutinized products, they range between 6% and 300%. Taking into consideration that one of the final aims of every food policy should be consumers health, the high premiums of prices affect their purchases. Undoubtedly, organic prices constitute a very important constraint to organic consumption in the domestic market.

A high percentage of consumers read and trust label information in Argentina, which has interesting policy implications in relation to food labeling policies to promote differentiated and high value products, and to reduce information asymmetries in process attributes, such as organic, for consumers living in large urban areas. In Argentina, consumers' values or quality perceptions seem to be much better predictors of their behavior than gender and age.

Efficient government actions need be directed towards a stricter control system; a better coordination between public and private organizations; the development and support of consumer food education and counseling programs; and a long-term planning for the organic sector.

Acknowledgments

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