

CONSUMERS' PREFERENCES AND WILLINGNESS TO PAY FOR TRADITIONAL FOOD PRODUCTS IN CHILE : A CONJOINT ANALYSIS

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Abstract

A study was carried out in Chile in order to evaluate urban consumers' preferences for traditional food, employing conjoint analysis.¹ A total of 234 questionnaires were filled out by respondents from two Chilean cities, Santiago and Talca. A homemade marmalade and three product attributes with its respective different levels were chosen (price, quality label and package appearance). Nine profiles were generated applying orthogonal design with SPSS conjoint analysis 9.0. Respondents were asked to rank pictorial cards according to their preferences. The results suggest the importance of a quality label on consumer's choice behavior for a traditional food product. In addition, respondents were willing to pay more for a quality labeled product than for a product without quality label. However, communication campaigns are needed to get the effects showed in this study.

Keywords: *Chile, Consumers' Preferences, Traditional Food Products, Willingness to Pay, Conjoint Analysis*

¹ Traditional food products are defined as those produce by inhabitants of rural areas, with traditional recipes and production method, with natural raw materials, low level of industrialization and low level of chemical additives.

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1. Introduction

Food consumers are complex creatures whose behavior is closely linked to a set of socio-demographic and psychographic factors as well as cultural aspects. Besides, people have physiological, social and psychological need for food. However, the social-psychological need of food is getting very important for the product development process, due to the optimization of the physiological need of food. Especially, the gastronomic, status and communication functions of food are of increasing importance when analyzing food choice in an industrial society (Sijtsema *et al.*, 2002).

Senauer (1994 and 2001), Kinsey *et al* (1996), have reported that changes in demographics, workforce participation of women, income distribution, as well as changes on lifestyles, are factors that are affecting the food consumption patterns in developed countries, and are dictating changes in the food chain. Nowadays, consumers are more interested in achieving more healthy lifestyles including consumption of healthier diets (Jolly, 1999). Also consumers' awareness for health, food safety, environmental, and technology issues related to food products as well as the industrialization of agriculture and globalization, have been identified as diversification factors of food consumption (Senauer, 1994 and 2001).

All of these factors described above, make the food market more segmented. Thus, it has to be distinguished the different consumption segments and satisfy each one of the demand categories. So, marketing research, advertising/promotion, extrinsic product attributes and presentation, are getting a greater importance in the food system (Marreiros *et al.*, 1997). On the other hand, in many parts of the world, countries have their own national dishes and regional specialties. These food products are usually produced and traded in the market by small-scale specialist producers who incorporate differentiated attributes to them. If we take into consideration that food has not only nutritional value but also symbolic meanings and psychological significance (Sijtsema *et al.*, 2002), marketing strategies could be implemented to encourage the demand for specialist or traditional foods. This competitive advantage might be used by the Chilean rural agro-industry, because it produces a broad variety of food products, which still conserve authenticity and other characteristics regarding social and cultural aspects as well as availability of natural resources. Even though Chilean consumers know this type of products, there are no guarantee signals about their attributes such as origin, composition, and method of production used (Tartanac, 2003). However, when it is guaranteed what consumers look for, they are willing to pay a higher price. These are the cases of organic products, those which have origin denomination, those produced with traditional methods, and those that have been produced applying standards according to fair trade (Oyarzún and Tartanac, 2002; Tartanac, 2003). Some empirical evidences regarding consumers' preference for differentiated quality attributes are given by Okechuku (1994), Elliott and Cameron (1994), Alvensleben and Schrader (1998), Kupiec and Revell (1998), Sanchez and Gil (1998), Bower and Baxter (2000), Cowan *et al.* (2000), Grannis *et al.* (2000), Lans *et a.* (2001), University of Chile (2002), Wan and Sun (2003), Villalobos (2005).

In the European Union for example, the valuation of traditional recipes and foodstuffs through different kinds of labels is a main objective of the agricultural sector policies (Marreiros *et al.* al., 1997; European Commission, 2004). This is reflected in the European

council regulation covering products with Protected Designation of Origin (PDO); Protected Geographical Indication (PGI) (EEC No 2081/92); and Certificates of Specific Character (EEC) No 2082/92: Traditional Specialties Guaranteed (TSG) (Lans *et al.* 2001; European Commission, 2004). Labels like those mentioned before, represent quality management tools that can bring advantages to producers through product differentiation, what allows the protection of the competition by the creation of market niches and also the creation of quality/price advantages (Marreiros *et al.*, 1997). However, the role of public and private agencies through development programs is fundamental in developing countries like Chile so as to enhance the conditions and opportunities of the small-scale agricultural producers. The support with financial and technical assistant is a crucial issue that might allow small producers making the transition to produce safer and higher-quality food products.

The main purpose of this study was to elicit consumers' preferences for traditional food products in Chile employing conjoint analysis procedure. The specific objectives were: a) to evaluate the introduction of a quality label for traditional food products on consumers' preferences and choice behavior and b): To estimate the willingness to pay for a certified quality label.

2. Methodology

General aspects

For the data collection process two cities in Chile were chosen. One of these was Talca, placed in the Maule Region and the other one was Santiago, Chile's capital city. According to the results of the Population Census (INE, 2002) the population in Talca² is roughly 201,797 inhabitants, living 96.0% of the population in the urban area and 4.0% in rural areas. Of the total population, 48.0% is male and 52.0% is female. The total population of Santiago³ is roughly 4,668,473 inhabitants, from which 99.8% live in urban areas and 0.2% in rural areas. Of the total population, 48.0% is male and 52.0% is female.

Target population

The target population selected was those consumers belonging to the socioeconomic levels ABC1, C2 and C3 in Talca and Santiago cities. This choice was basically done, because traditional food products tend to be more exclusive and their price is higher with respect to industrialized food. This means that traditional food products can be mainly purchased by socioeconomic groups of high and middle income (University of Chile, 2002).

Sample and sample unit

The method chosen to collect the data was a survey; meanwhile the instrument was a questionnaire. The questionnaire was administrated as a face to face interview. The sample was randomly selected and the interviews were administered as "in home interviews" or as "in office interviews". A total of 234 interviews were administered to Chilean consumers throughout October 2004. Of this, 150 interviews were filled in Talca and 84 in Santiago. All questionnaires were considered valid for the data analysis section. As sample unit for this

² Talca city corresponds to one municipality.

³ Santiago city groups 32 municipalities and it is called "Gran Santiago".

study, those persons who are in charge of buying the foodstuffs for their households, or at least that they have to participate of this responsibility, were chosen.

Conceptual Framework

The method used in this study to evaluate consumers' preferences was conjoint analysis (hereafter CA). The information obtained from a CA can be applied to a wide variety of market research questions. It can be used to investigate areas such as products design, market share, strategic advertising, cost benefit analysis and market segmentation (Cattin and Wittink, 1982; Wittink and Cattin, 1989; Wittink *et al.*, 1994; SPSS Conjoint 8.0, 1997).

One of the key assumptions underlying CA is that, it is a descompositional method that estimates the structure of a consumer's preferences such as part-worth utilities (Green and Srinivasan, 1978 and 1990; Harrison *et al.* 1998, Harrison *et al.*, 2001), i.e., overall judgments are separating into psychological components providing valuable information about the importance of various attributes of a product. Also, CA can provide information about the value or utility of different levels of a single attribute (Green and Wind, 1975; Green and Srinivasan, 1978 and 1990; Harrison *et al.* 1998, Harrison *et al.*, 2001).

As was mentioned before, part-worth utility values can also be used to compute the importance of the product attributes. Although the estimated part-worth utilities provide useful information regarding consumers' preferences for product attributes, they do not provide direct measurement of the attributes importance. The attributes importance is an important piece of information for managers in making their production and marketing decisions (Green and Wind 1975; Halbrendt *et al.*, 1995; Harrison *et al.*, 1998; Wang and Sun, 2003).

Attributes selection and stimulus construction

After discussing with experts of INDAP⁴ and other specialists in Chile, a homemade marmalade produced by a group of small producers of the Maule Region, was chosen as product for the conjoint evaluation. The attributes chosen were: price, packaging and guarantee label. The levels chosen for each attribute are shown in Table 3.

Table 3: Attributes and Attribute Levels chosen for the CA.

Attribute Name	Attribute Label	Attribute Level
Price	Price	Price 1 (€1.31)
		Price 2 (€1.97)
		Price 3 (€2.63)
Label	Quality label	Without label
		Label certified by INDAP
		Label certified by SAG ⁵
Packaging	Package appearance	Craft
		Conventional

Source: Authors' elaboration.

⁴ INDAP corresponds to the Spanish abbreviation of the Chilean Institute of Agricultural development.

⁵ SAG corresponds to the Spanish abbreviation of the Chilean Agriculture and Livestock Service.

In order to reduce the number of profiles for testing, a fractional factor design (orthogonal design) was applied. The orthogonal design was generated using SPSS Conjoint, Version 9.0. As result of the orthogonal design, nice profiles were created (see Table 4). Besides, to verify the validity of the model, two holdout cases⁶ were included.

Table 4: Orthogonal Array for Homemade Marmalade.

Profile	Price (€)	Label	Packaging
1	1.31	Without	Craft
2	2.63	SAG	Conventional
3	1.97	INDAP	Craft
4	1.97	Without	Conventional
5	1.97	SAG	Craft
6	2.63	INDAP	Craft
7	1.31	SAG	Craft
8	1.31	INDAP	Conventional
9	2.63	Without	Craft
10 ^a	1.31	SAG	Conventional
11 ^a	2.63	INDAP	Conventional

Source: Author elaboration.

^a These profiles correspond to holdout cases.

Stimuli presentation

In this study pictorial representations of the profiles generated from the experimental orthogonal plan, were used. In order to quantify the utilities of the attribute levels and the relative importance of the attributes in the purchasing decision of a homemade marmalade, the respondents were asked to establish a rank order of the profiles in terms of their preferences (from the most preferred to the least preferred).

Model specification

The most common preference model used in CA is the part worth model (Cattin and Wittink, 1982; Wittink and Cattin, 1989; Green *et al.*, 2001). In this type of models, preference for an object (product) is assumed to be an additive function of the values (worth) of its components (attribute levels) (Cattin and Wittink, 1982; Wittink and Cattin, 1989). Thus, the dependent variable corresponds to the preference judgment a respondent makes about a product or service and the independent variables correspond to the specified attribute levels.

The part-worth model can be represented through the following equation (Green and Srinivasan, 1978; Green *et al.*, 2001):

$$S_i = \sum_{p=1}^t f_p(y_{ip})$$

⁶ Holdout cases are profiles that are judged by the subjects but are not use by the conjoint procedure to estimate utilities. They are generated from another random plan, not the experimental orthogonal plan. They are used to compute correlations between the observed and predicted rank orders f or the profiles as a check on the validity of the utilities (SPSS Conjoint 8.0, 1997).

Where S_j is the i th respondent's preference judgement; p denotes the set of attributes or factors that have been chosen; y_{ip} corresponds to the levels of the p th attribute; f_p is the function denoting the part worth of the different levels of y_{ip} for the p th attribute.

In this study, the overall preference (R) was specified as a function of the product attributes. Then, the model used to estimate the part-worth utilities is:

$$R = f(\text{price}, \text{quality seal}, \text{package appearance})$$

Assuming that quality seal and package appearance are discrete variables and price is in linear function forms, the conjoint preference model for a homemade marmalade can be written as:

$$R_i = \mathbf{b}_0 + \mathbf{b}_1 P + \mathbf{b}_2 QS_1 + \mathbf{b}_3 QS_2 + \mathbf{b}_4 PA + e_i$$

Where R_i is the preference rank order by the i th respondent; P is price; $QS_1 = 1$ and $QS_2 = 0$ represent the quality seal certified by SAG; $QS_1 = 0$ and $QS_2 = 1$ represent the quality seal certified by INDAP; $QS_1 = -1$ and $QS_2 = -1$ represent a product without quality seal; $PA = 1$ represents a craft package appearance; $PA = 0$ represents a conventional package appearance; and e_i is the error term.

Applications of CA

Market simulation

Utility estimated through CA can play an important role in order to design strategic market simulators (Green and Wind, 1975). Many marketing research companies use the utilities estimated through CA mainly to enter them into a choice simulator with the purpose of answering several "what if" questions (Green and Srinivasan, 1990).

Choice simulations are carried out with the aim of observing what share of choices would be generated by each of several product profiles if they were competing with each other in the market (Green and Srinivasan, 1978). According to Sánchez and Gil (1998), the choice simulation procedure allows assessing the market shares for each product chosen in each scenario. So, variations in market shares when two scenarios are compared which vary only in one attribute, allow measuring the sensitivity of this attribute on the demand of the product.

3. Data Analysis and Results

Sample description

For this study, the sample size corresponds to 234 individuals. All respondent were taken into consideration for the analysis. From the total sample, 32.9% are men and 67.1% are women.

Age groups

From the total sample, 32.5% is located in the age group of 47-57 years old; meanwhile 29.1% and 24.8% is aged between 25-35 and 36-46 years old, respectively. It can be noticed that these three groups represent 86.4% of the respondents. On the other hand, 12.0% is aged above 57 years old and only 1.7% of the sample is aged 24 or less years old. The low amount

of young people (aged 24 or less) surveyed can be explained due to the fact that the survey was mainly addressed to those who are in charge of buying the foodstuffs for the household or at least that they participate of this activity. These results are shown in Table 5.

Table 5: Age Groups by Frequencies and Percentages.

Age Group (years)	Frequency (n)	Percent (%)	Cumulative Percent (%)
24 or less	4.0	1.7	1.7
25-35	68.0	29.1	30.8
36-46	58.0	24.8	55.6
47-57	76.0	32.5	88.0
Above 57	28.0	12.0	100.0
Total	234.0	100.0	

Source: Author elaboration with the data collected.

Socioeconomic groups

According to the results shown in Table 6, 56.8% of the respondents belong to the socioeconomic segment C2 (middle income); meanwhile 26.9% and 16.2% belong to the socioeconomic segments C3 (middle-low income) and ABC1 (high income), respectively. No respondents belong to a lower socioeconomic segment, because, as was mentioned before, the survey was addressed only to those socioeconomic groups with potential to purchase traditional food products.

Table 6: Socioeconomic Groups by Frequencies and Percentages.

Household Income (€)	Frequency (n)	Percent (%)	Cumulative Percent (%)
Less than 526 (D, E)	0	0	0
526-855 (C3)	63.0	26.9	26.9
856-2,434 (C2)	133.0	56.8	83.8
More than 2,434 (ABC1)	38.0	16.2	100.0
Total	234.0	100.0	

Source: Author elaboration with the data collected.

Educational levels

The majority of the respondents have an educational level of uncompleted University or full University which corresponds to 47.4% of the total sample. The persons having Technical education represents 18.8% of the sample, meanwhile 23.1% of the respondents have post-graduate studies. It can be observed that the persons having a primary and secondary formation represent only 10.6% of the respondents, which is rather logic, if it is taken into account that the persons surveyed belong to upper and middle socioeconomic segments. Table 7 shows these results.

Table 7: Educational Levels by Frequencies and Percentages.

Educational Level	Frequency (n)	Percent (%)	Cumulative Percent (%)
Primary school	5.0	2.1	2.1
Secondary school	20.0	8.5	10.7
Technical education	44.0	18.8	29.5
Uncompleted university	26.0	11.1	40.6
Full university	85.0	36.3	76.9
Master degree	35.0	15.0	91.9
Doctorate degree	19.0	8.1	100.0
Total	234.0	100.0	

Source: Author elaboration with the data collected.

Household size groups

Regarding household size, almost 71% of the respondents pointed out that the number of persons living in the household is between 2 and 4. On the other hand, 23.5% said that the number of persons living in the household is above 4. Only 5.6% of the sample pointed out that they live alone (see Table 8).

Table 8: Household Size Groups by Frequencies and Percentages.

Household Size	Frequency (n)	Percent (%)	Cumulative Percent (%)
1	13.0	5.6	5.6
2-4	166.0	70.9	76.5
Above 4	55.0	23.5	100.0
Total	234.0	100.0	

Source: Author elaboration with the data collected.

Consumers' attitudes towards traditional food products

In this section, it will be presented the results regarding consumers' preference and perception for traditional food products.

When respondents were asked if they consume traditional food products, 84.2% pointed out to consume them ($n = 197$) and only 15.8% said not to consume them ($n = 37$). These results are presented in Figure 8.

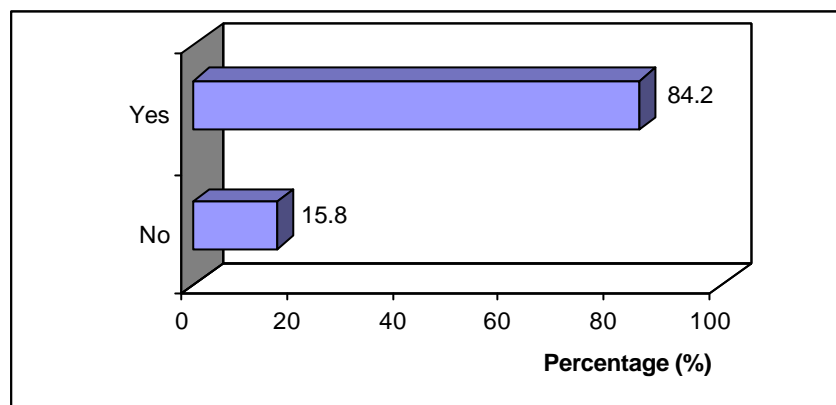


Figure 8: Consumption of Traditional Food Products (Author elaboration with the data collected)

Further reference regarding consumption of traditional food products will present as follows: respondents who consume traditional food products (CTRFP group), and respondents who do not consume traditional food products (DCTRFP group).

The main reasons for not consuming these products given by the DCTRFP group ($n = 37$) are: *They are not always available* (24.3% strongly agree and 54.1% agree) and *I do not know where to buy them* (24.3% strongly agree and 43.2% agree) (see Figure 9). The mean values of these two statements are located between indifferent and agree. Even though the mean of the statement *I do not know them* is also located between indifferent and agree, its value is nearer 3 (neither agree nor disagree). On the other hand, the persons surveyed mainly disagreed with the statements *They are expensive* (32.4%), *Their quality is low* (43.2%) and *I am not interested about them* (37.8%). To sum up, it can be said that the DCTRFP group, does not show a negative attitude towards traditional foodstuffs.

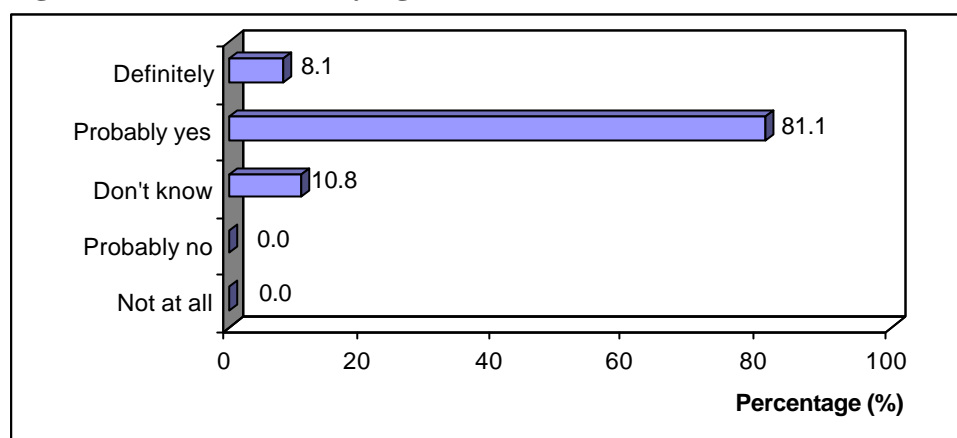


Figure 9: Reason for not Consuming Traditional Food Products (Author elaboration with the data collected)

When the respondents belonging to the DCTRFP group were asked to pronounce themselves about their willingness to buy them in the future, 81.1% pointed out that they would probably buy them and 8.1% would definitively buy them (see Figure 10). On the contrary, no one was

unwilling to buy them and only 10.8% do not know if they would buy them in the future. This also indicates that the persons belonging to the DCTRFP group show a positive attitude towards this kind of food products.

Figure 10: Interest on Buying Traditional Food Products in the Future.



Source: Author elaboration with the data collected.

Homemade marmalade CA

The attributes (also called factors) chosen for the CA were: a) price, b) quality label and c) package appearance. The CA was carried out on the whole sample ($n = 234$), that is, people who do not consume traditional food products were also included in the analysis.

The results of the CA for the whole group are presented in the next Tables and Figures.

Table 11 shows the scores for each profile and Table 11 presents the estimated utilities for each attributes level.

Table 11: Profiles Scores for Home made Marmalade CA.

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6	Profile 7	Profile 8	Profile 9
Score	4.35	4.57	6.08	2.40	6.52	5.03	7.57	6.24	2.24

Source: Author elaboration with the data collected.

The same table shows that Profile 7 reached the highest score (price = €1.31, quality label = certified by SAG, package appearance = craft). On the other hand, the lowest score was attained by Profile 9 (price = €2.63, quality label = without, package appearance = craft).

Table 12 shows that the greatest difference between attribute levels (in terms of utility) is given by the attribute quality label (3.2222), that is, this attribute presents the highest utility. Therefore, respondents care more about the presence of a quality label than package appearance and price. The quality label certified by SAG presents the highest utility (1.2194). The next paragraphs present more detailed information about utilities of the different attribute levels.

Table 12: Total Utilities for Home made Marmalade CA.

Constant	: $\ln \frac{W}{XW}$	/ DHO	/ DHO	Package	Package	Price
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	VDO	, 1' \$ 3	6 \$ *	craft	conventional	
7.9919	-2.0028	0.7835	1.2194	0.4444	-0.4444	-1.5939

Source: Author elaboration with the data collected.

In order to corroborate how well the model fits the data, the Person's r and Kendall's tau-b statistics are displayed in Table 13. Since the Kendall's tau-b coefficient is appropriated for measuring the association between rank orders and for analyzing ordinal variables, the results will be presented based on this test.

In this case, the Kendall's tau-b for homemade marmalade CA shows a strong correlation (0.944) with a significance level p equals to 0.0002. This means that there is a significant correlation between the observed and estimated preferences scores.

Table 13: The Pearson's r and Kendall's tau-b Statistics.

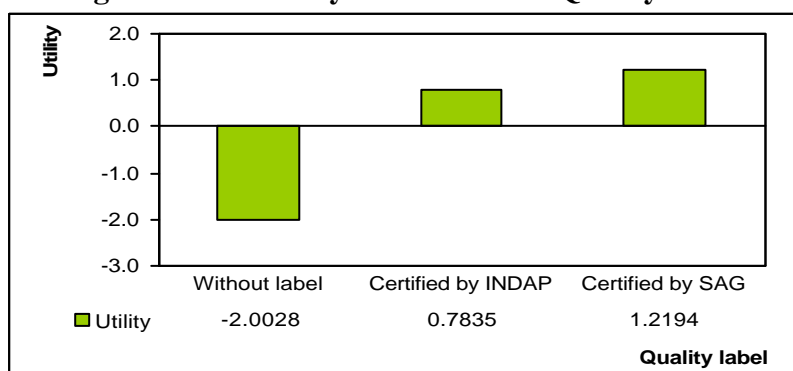
Pearson's $r = 0.986$, Significance $p = 0.0000$
Kendall's tau-b = 0.944 , Significance $p = 0.0002$

Source: Author elaboration with the data collected.

The internal validity was assessed by calculating the Kendall's tau-b between observed and predicted rank orders for the two holdout cases. The estimated Kendall's tau-b was 1.0 with a significance level p equals to 0.0000. This suggests the high internal predictive validity of the model.

Figure 17 presents the utilities for the different attribute levels. As was mentioned before, consumer's preferences for a homemade marmalade regarding quality label, has the highest utility for a quality label certified by SAG (1.2194). The second place corresponds to a label certified by INDAP (0.7835) and lastly without quality label (-2.0028). It means that, for example, a homemade marmalade with a quality label certified by SAG gives 3.2222 more utility than one without quality label.

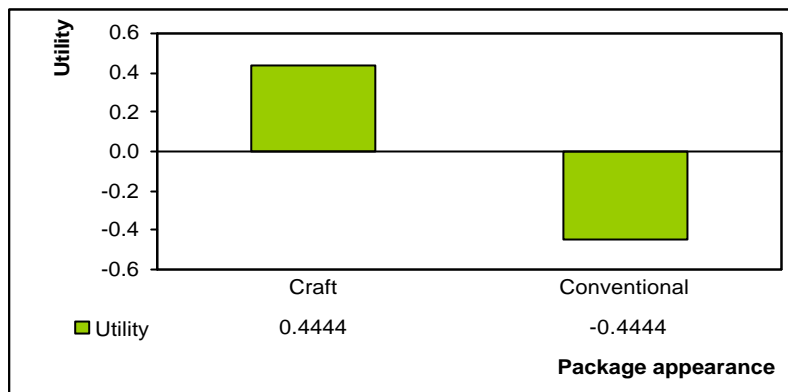
Figure 17: Summary of Utilities for Quality Label.



Source: Author elaboration with the data collected.

Figure 18 shows the utilities for consumer’s preferences for a homemade marmalade in relation to the package appearance. The highest utility is reached by the craft type (0.4444) and in second place is the conventional type (-0.4444). Thus, craft appearance involves an increment of 0.8888 utility points.

Figure 18: Summary of Utilities for Package Appearance.

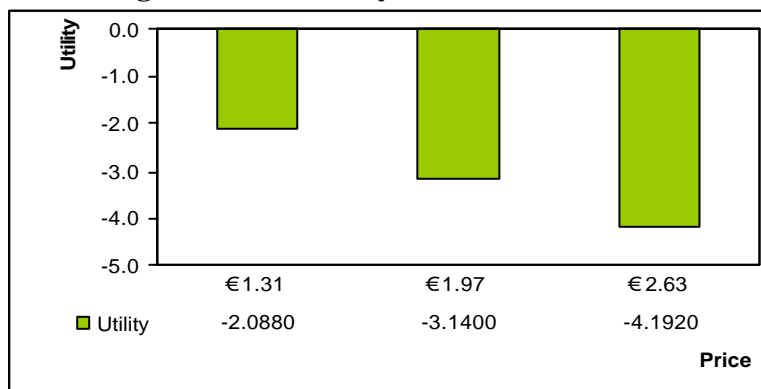


Source: Author elaboration with the data collected.

Figure 19 presents the utilities for the attribute price. The lowest price (€1.31) reaches the highest utility value (-2.0880). In second place is price €1.97, with a utility value of -3.1400. Finally, the highest price (€2.63) reaches the lowest utility (-4.1920). It means, for instance, the utility of a product with a price equals to €2.63 will be 2.104 utility points lower than one with a price of €1.31. Nevertheless, a quality seal certified by SAG involves an increment of 3.2222 utility points. Therefore, by including a quality seal certified by SAG it would more than offset the negative effect of a higher price.

The beta value (β) indicates how the increment on price affects the consumers’ preference judgment. For example, when there is an increment of 1 euro on price, the consumers’ preference judgment decreases by 1.5939.

Figure 19: Summary of Utilities for Price.

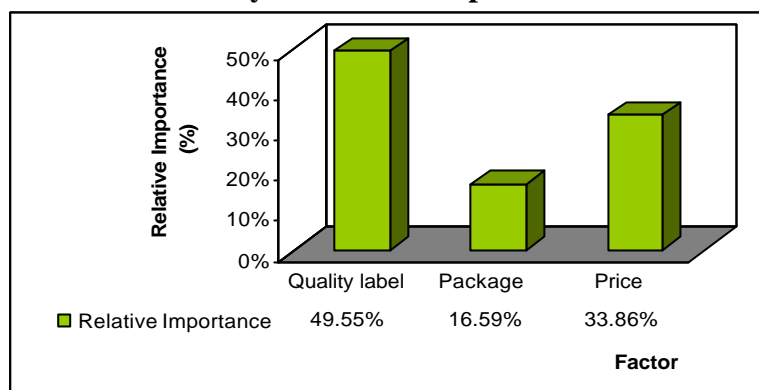


Source: Author elaboration with the data collected.

$$\beta = -1.5939$$

Importance scores can be observed in Figure 20. In this study, the quality label factor is the most important with a relative importance of 49.55%. The second factor in importance is price (33.86%), whereas package appearance is the less important factor (16.59%). This means that respondents’ preferences for a homemade marmalade are mainly guided by the attribute quality label.

Table 20: Summary of Relative Importance of the Factors.



Source: Author elaboration with the data collected.

Based on the CA results, it was estimated the marginal willingness to pay (MWTP) for the attribute quality label certified by SAG. This choice for the calculation of the MWTP was done, taken into account that this attribute level attained the highest utility in each CA carried out.

According to Gan and Luzar (1993), the MWTP is computed by calculating the negative quotient between the coefficient (utility value) of each attribute (in this case quality label certified by SAG) and the coefficient of the attribute price (β value). The calculation procedure is shown with the following equation:

$$MWTP = - \left(\frac{\text{Utility SAG seal}}{\mathbf{b} \text{ price}} \right)$$

In the analysis for the whole sample, consumers would be willing to pay €0.77 more for a homemade marmalade with a quality label certified by SAG over the price of a product without quality label.

If it is taken in consideration as an example the average market price (roughly €1.97) for a homemade marmalade without quality label, it can be said that the respondents ($n = 234$) would be willing to pay 39% more for a homemade marmalade with a quality label.

Market simulation

Once analyzed the consumer's preferences for a traditional homemade marmalade, and delimited the market segments for this traditional food product, the next step in this study was to carry out a market simulation. Four scenarios or hypothetical market situation were established on the based of the results obtained through the CA for the whole group. In the choice simulator, a based-case profile was considered (without quality label, €1.31, and craft appearance). The base-case profile represents a real product that can be found in the Chilean market. The base-case profile was contrasted with four hypothetical profiles/products that could enter into the market. It was also considered a base-case scenario (scenario I).

In Table 30 are presented the scenarios used in the simulation and the market shares estimated with the maximum utility model and BTL model. Both models were considered in this study, because they show two different alternatives of choice. However, results will be described on

the based of the BTL model results, given that this model provide more realistic shares with respect to the results of the CA.

The first scenario states an initial situation in which a homemade marmalade without quality label competes with a homemade marmalade with a quality label certified by SAG. In this case package appearance and price are held constants. So, in the first scenario is assessed the effect on the market share when a homemade marmalade with a quality label certified by SAG is introduced.

In the second and third scenarios are held constants the characteristics of the base-case product with respect to the first scenario and for the hypothetical products the attribute price increases (€1.97 and €2.63, respectively). The comparison of the first scenario regarding the second and third ones, allows analyzing the price elasticity of a product with a quality label certified by SAG.

Finally, in the fourth scenario are held constants the characteristics of the base-case product with respect to the first scenario and for the hypothetical product only the attribute package appearance is modified (conventional instead of craft). The contrast of the first with the fourth scenario allows knowing the market response to a change in the package appearance of the product with quality label.

Table 30: Scenarios and Market Shares for a Real Product and for Hypothetical Products.

Scenario	Profile	Quality Label	Price	Package Appearance	Market Share	
					Max. Utility	BTL
I	Base-case	Without SAG	€1.31	Craft	9.40%	34.86%
	Hypothetical		€1.31	Craft	90.60%	65.14%
II	Base case	Without SAG	€1.31	Craft	22.86%	38.29%
	Hypothetical		€1.97	Craft	77.14%	61.71%
III	Base-case	Without SAG	€1.31	Craft	36.97%	43.80%
	Hypothetical		€2.63	Craft	63.03%	56.52%
IV	Base-case	Without SAG	€1.31	Craft	19.02%	38.19%
	Hypothetical		€1.31	Conventional	80.98%	61.81%

Source: Author elaboration with data collected.

The results of the choice simulator based on the BTL model indicate that in the scenario I, a product with a quality label certified by SAG achieves a greater market share (65.14%) in comparison with a product without quality label (34.86%). This result suggests the importance that a quality label has as choice criterion on the respondents' purchasing behavior. This makes sense if it is taken into account the results of the CA obtained in this study for the whole sample, and also for the CTRFP, DCTRF, Talca, and Santiago groups.

When the scenario I is compared with the scenario II and III, it can be observed that the market shares of a product with quality label in the scenario II and III decrease when price increases from €1.31 to €1.97 and from €1.31 to €2.63. Even though the increase on price, their shares (61.71% and 56.52% in the scenario II and III, respectively) are still greater than the shares of a product without quality label and with a lowest price (38.29% and 43.52% in the scenario II and II, respectively). This suggests two important ideas. If it is taken in consideration the magnitude of the variation on the market shares when price increases, it can

be said that the price elasticity of demand for a product with quality label is inelastic, that is, the quantity demanded of a product with a quality label decreases less than proportionally respect to an increment on price. Another important aspect is that a large proportion of the market would be willing to pay more for a product with quality label in the scenario II (61.71%), as well as, in the scenario III (56.52%).

If the scenario I and IV are compared, which are differentiated by the kind of package appearance, it can be noted that a change in this attribute barely affects the market share of a product with a quality label certified by SAG (65.14% in the scenario I and 61.81% in the scenario IV). It means that the attribute package appearance appears to be the less important attribute on the consumers' choice behavior.

4. Conclusions

According to the results of this study, the following conclusions can be drawn:

The estimation of the relative importance of the factor suggests that consumers' preferences and purchasing choice for a specific traditional food product are basically driven by the attribute quality label. In addition, the quality level certified by SAG reached the highest utility level.

Consumers would be willing to pay more for a homemade marmalade with a quality label certified by SAG, than for a product without quality label. Thus, there is a market niche in Chile that would be willing to pay more for a traditional food product, only if, the distinctive quality cues of it, are guaranteed by a quality label. This fact is supported by the market simulation carried out in this study. The choice simulator indicates that a hypothetical product with a quality label certified by SAG is able to achieve a greater market share than a current product without quality label. Therefore, this attribute might have great importance as choice criterion on the consumers' purchasing behavior.

These results, however, must be understood as the potential that a well advertised/promoting quality label for traditional food products might be achieved in the Chilean market, that is, communication campaigns are needed to educate consumers about the characteristics and importance of a quality label.

As a management quality tool, a quality label seems to be a good alternative to improve the conditions and market opportunities of small agricultural producers and processors. However, to be successful, the product differentiation strategy through a quality label implies not only communication campaigns but also organization and association of small producers and processors. Regarding this, the role of the public and private sectors in Chile is a key factor.

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