



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

The Motivational Profile of Organic Food Consumers: a Survey of Specialized Stores Customers in Italy

Idda L.¹, Madau F.A.² and Pulina P.¹

¹ University of Sassari, Department of Agricultural Economics and Woody Plants Ecosystems, 07100 Sassari, ITALY

² National Institute of Agricultural Economics (INEA), 07100 Sassari, ITALY

Abstract — Organic food demand is becoming increasingly important throughout the world. Despite this relevance, however, not many attempts have been carried out to profile this food market segment. This paper aims to investigate on motivations that drive consumers towards purchasing organic foods in Italy. Through a survey carried out in some organic specialized stores sited in Sardinia, we explored organic consumer behaviour with specific emphasis on understanding reasons consumers have to buy organic products. A Multiple Correspondence Analysis has obtained four consumers' motivational profiles and several findings. Furthermore, a Logit regression allowed us to evaluate the relationships between individual motivations and some socio-demographic characteristics of organic consumers. Some marketing and policy implications arisen from the obtained results.

Keywords — Organic food purchase, Consumer's motivational profilers, Logit regression.

I. INTRODUCTION

Organic farming is becoming increasingly popular throughout the world. In 2005, the world organic land amounted to 30.6 million hectares [1]. Regarding market, sales for organic food actually exceeds 30 billion euros, (+43% since 2002). The weight of organic products on the world food consumption is around 2-3%, but it tends to be higher in North America and Europe, where since years organic market has strongly developed [1,2].

On the other hand – with specific regard to Europe – in some countries the market for organic food faces some limitations [3,4]. Somewhere organic consumption has not increased at the same rate than production and/or a lack of specific strategies for organic products can be observed. It is a fact that in these markets, it becomes a priority to identify customer profiles in order to calibrate marketing strategies. As a consequence, well-suitable strategies

and policies should increase potential organic food market, producing positive effects for organic farming on the whole. More in depth, promotion of rational market-oriented policies should allow organic farmers – that play a relevant role in promoting multifunctional agriculture – to be less dependent by public subsidies.

Regarding Italy, for example, some authors have underlined that, despite a significant demand for organic food, not many attempts have been carried out to profile this relevant food market segment [4,5]. To be more precise, little attention has been put on detecting consumer motivations. On the contrary, understanding motivations driving organic consumption should allow private and public decision makers to better defining consumer profiles in order to support a more efficient meeting between supply and demand.

In the light of these considerations, this paper aims to investigate on motivations that drive consumers towards purchasing organic foods in Italy. Through a survey carried out in some organic specialized stores sited in Sardinia, we explored organic consumer behaviour with specific emphasis on understanding reasons consumers have to buy organic products. The choice to conduct analysis only regarding organic specialized stores comes from the need to focus the attention only on regular organic products consumers.

The study is organised in two different steps. Firstly, on the basis of questionnaire answers formulated by consumers, some different organic consumer profiles are identified and described according to individual motivations that would move people to buy organic foods. A Multiple Correspondence Analysis is applied for the identification of the profiles. Secondly, the relationships between individual motivations and some socio-demographic characteristics of organic consumers are evaluated by some Logit regressions.

Section 2 briefly illustrates the literature on the theme. Section 3 is focused on data description and reports some summary statistics. Models and variables used in the analysis are described in Section 4. Main results are discussed in Section 5 as well as some concluding remarks are expressed in Section 6.

II. BACKGROUND

In the last years, a wide literature has been produced on the theme of consumer demand for organic food. Most of the studies have been focused on the relationships between consumer characteristics, product attributes and organic food consumption tendency¹. As underlined by Thompson [6] and Dimitri and Greene [7] these studies have generally relied almost exclusively on self-reporting of purchase behaviour and attitudes as elicited through interviews.

It is a fact that demand analysis has been mostly detected in terms of *willingness to pay* (WTP) for purchasing organic rather than conventional products. These studies reveal conflicting results about relationship between consumer willingness to pay a *premium price* for organic food, product attributes and socio-demographic and behaviour characteristics [e.g., 3, 8,9,10,11,12,13,14,15]².

Alternatively, there have been also a number of studies in which willingness to purchase organic products is investigated not only in terms of *premium price*, but with reference to consumer attitudes to prefer organic rather than conventional food on the whole [16,17,18,19].

Among the other objectives, these papers aim to explore how buyers of organic products differ from their conventional counterparts in lifestyle and attitudes, the structure of consumer preferences and the relative importance of product attributes, and consumer perceptions regarding some commercial aspects (e.g., quality, availability).

Although the large literature, little has been done to understand the reasons consumers have to purchase or not organic food. Vice versa, detecting into

motivations driving consumer choices should be recommended in order to better understand organic food market and to provide suitable strategies and policies.

Dimitri and Greene [7] report that health, taste and environmental safeguard are the main inherent reasons for purchasing organic food. The same factors were individuated by Gil *et al.* [11] among the factors that principally switch consumers towards organic products.

In a recent article, Roitner-Schobesberger *et al.* [20] found that about 90% of people interviewed in Thailand think that organic foods is healthy and good for the environment. On the other hand, Cicia *et al.* [4] identified evocation (*i.e.*, nostalgic feelings and, as a consequence, safeguard of some traditional products or processes) and curiosity among these factors. Applying a *Means-End Chain* analysis, these authors found that health and environmental effects are the most important motivations for consumers buying organic products in an Italian region (Campania). Findings arisen from an other *Means-End Chain* application on the Italian market suggest that health and individual wellness are the main reasons that move organic consumers to prefer these products [5].

III. DATA AND SUMMARY STATISTICS

Data were gathered from a survey made during 2007 in some organic specialized stores throughout Sardinia (Italy). Information were collected by direct interviews administrated to a sample of 100 buyers that regularly purchase food in some specialized stores.

Questionnaire was subdivided in different sections.

In the first one, we asked to the buyers some information about their *knowledge* of organic food (“*How long have you known organic food?*”), their *experience* as organic consumer (*How long have you purchased organic food?*), and *frequency* in purchasing organic products (“*How often do you purchase organic food?*”).

In the second section, we collected information about the types of products regularly purchased in a specialized store. Furthermore, with reference to each

¹ See [6,7,8] for more information about this literature.

² Presence of conflicting findings should partially depend on application of different methodological approaches among authors [7].

product, the customers were asked if they exclusively purchase organic food or not.

In the third section, we obtained some descriptive and socio-demographic information about consumers. More in detail, by each interviewed person we gathered data about age, gender, education and household size.

The last section was targeted to know motivations that affect organic food consumption. The following question was formulated to each buyers: “*Why you purchase organic products?*”. Certain possible motivations were *a priori* individuated for “setting” answers in a limited range of possible options. More specifically, according to some empirical results found in the literature, we individuated six different motivations:

1. *Organic food is healthier than conventional food;*
2. *Organic food is more tasteful than conventional food;*
3. *Organic food tends to safeguard environment more than conventional food;*
4. *Purchasing organic food contributes to help farm incomes;*
5. *Purchasing organic food permits to safeguard some traditional products and activities*
6. *Curiosity*

A multiple answers option was allowed to each respondent in order to have a comprehensive frame. Some descriptive statistics relative to the sampled consumers are reported in the following tables. More than 3/4 of the respondents (77%) were female (Table 1). Because of typically females tend to have more responsibility than males (in a family) for food shopping, it should be noted that this is a common finding in this type of survey.

Somewhat young people formed a large quote of the participants. Indeed, only 16% of the respondents were 51 years old or more. Particularly, in the 35% of the observation the age of interviewed people was included from 41 to 51 years. Furthermore, interviewed people had more formal education. Approximately a good half-sample completed a high school program and 34% of the respondents were graduate or got a post-graduate education. Regarding the household size, 22% of the respondents lived in a

2-people family, while people that lived in families formed by 3 and 4 people amounted to 29% and 30% respectively. Not negligible the singles (14%).

Table 1 - Socio-demographic sample characterization

| VARIABLE | TOTAL SAMPLE (n. = 100) | % |
|-----------------------|----------------------------|-----|
| Gender | | |
| Male | 23 | 23% |
| Female | 77 | 77% |
| Age | | |
| ≤ 20 years of age | 2 | 2% |
| 21-30 | 21 | 21% |
| 31-40 | 26 | 26% |
| 41-50 | 35 | 35% |
| 51-60 | 11 | 11% |
| ≥ 61 | 5 | 5% |
| VARIABLE | TOTAL SAMPLE (n. = 100) | % |
| Education | | |
| Primary school | 3 | 3% |
| Intermediate school | 14 | 14% |
| High school | 49 | 49% |
| Graduate college | 34 | 34% |
| Household size | | |
| Single | 14 | 14% |
| 2 people | 22 | 22% |
| 3 people | 30 | 30% |
| 4 people | 29 | 29% |
| ≥ 5 people | 5 | 5% |

Table 2 reports answers relative to organic products that respondents regularly purchased.

More than 60% of the interviewed customers bought rice and durum wheat pasta (60% and 67% respectively). Sauces and soups, too, showed significant appreciation (65% of the sample purchased them).

Among the most relevant marketable organic products, wine was bought by 25% of respondents, while the correspondent quote regarding olive oil, milk (and dairy) and biscuits amounted to 35%, 31% and 22% respectively.

Table 3 shows answers relative to the main motivations that orient interviewed customers towards organic purchasing. For about 90% of the respondents, organic food is healthier than the conventional one. Furthermore, environment value turns out to be the second most important motivation to consumer purchasing organic food (72%). On the other hand, approximately 40% of the sample consumers declare

to prefer organic food by a hedonistic point of view (taste).

Table 2 - Organic products purchased by the survey respondents

| PRODUCTS | TOTAL SAMPLE | |
|-------------------|--------------|-----|
| | (n. = 100) | % |
| Rice | 60 | 60% |
| Pasta | 67 | 67% |
| Honey | 39 | 39% |
| Olive oil | 35 | 35% |
| Milk and dairy | 31 | 31% |
| Conserves | 23 | 23% |
| Flours | 45 | 45% |
| Legumes | 53 | 53% |
| Sauces and soupes | 65 | 65% |
| Wine | 25 | 25% |
| Biscuits | 22 | 22% |
| Tea and herb teas | 45 | 45% |
| Spice | 40 | 40% |
| Ice creams | 30 | 30% |
| Others | 11 | 11% |

Rather significant is also the incidence of respondents that think purchasing organic products could positively affect farmers income (23%). Finally, curiosity and safeguard of traditional activities are recognized as motivations by 11% and 9%, respectively.

Table 3 - Motivations for purchasing organic food - observed frequencies

| MOTIVATIONS | TOTAL SAMPLE | |
|---|--------------|-----|
| | (n. = 100) | % |
| 1) OF is <u>healthier</u> | 89 | 89% |
| 2) OF is more <u>tasteful</u> | 39 | 39% |
| 3) OF tends to safeguard <u>environment</u> | 72 | 72% |
| 4) Purchasing OF contributes to help <u>farm incomes</u> | 23 | 23% |
| 5) Purchasing OF safeguards <u>traditional activities</u> | 9 | 9% |
| 6) <u>Curiosity</u> | 11 | 11% |
| 7) Other motivations | 12 | 12% |

IV. METHODOLOGY AND VARIABLES

Multiple Correspondence Analysis (MCA). MCA allows one to analyze the pattern of relationships of several categorical dependent variables [21]. By a technical point of view, MCA is used to analyze a set of observations described by a set of nominal variables. Each nominal variable comprises several levels, and each of these levels is coded as a binary variable (0 and 1). MCA aims to attribute factor scores to each observation and to each category in order to represent relative frequencies in terms of the distances between individual rows and/or columns in a low-dimensional space³.

MCA is obtained by using a standard correspondence analysis on an indicator matrix (X). This is a J x M matrix where J_k is the vector of the levels for each K nominal variable (with $\sum J_k = J$), and M is the number of observations. Performing MCA on X will provide two sets of factor scores: one for the rows and one for the columns. These factor scores are, in general scaled such that their variance is equal to their corresponding eigenvalue.

In MCA, proximities are meaningful only between points from the same set (*i.e.*, rows with rows, columns with columns). In other terms, when two row points are close to each other they tend to select the same levels of the nominal variables. However, we need to distinguish two cases:

- 1) the proximity between levels of *different* nominal variables means that these levels tend to appear together in the observations;
- 2) because the levels of the *same* nominal variable cannot occur together, the proximity between levels means that the groups of observations associated with these two levels are themselves similar.

We remand to [21,22] for more detailed information about MCA properties and goals.

In this study, analysis should allow us to put on evidence relationship between the six individuated motivations that lead organic consumer choices. Trough a representation in a low-dimensional space – designed on the basis of few principal components –

³ For its inherent nature, MCA can be also view as a generalization of principal component analysis when the variables are categorical instead of quantitative.

we aimed to define some clusters (profiles) for organic consumers.

In this study, MCA is carried out by building a $J \times M$ indicator matrix (X), where $J_k = 2$ (yes or no sensitivity for each motivation) is the vector of the levels for each K nominal variable; $K = 6$ are the nominal variables represented by the number of motivations and $M = 100$ are the number of observations.

Logit model. Logit is a regression model commonly used in settings where the dependent variable is binary [23]. Generally, in analyses carried out from surveys, dependent variable is a yes/no answer to the administrated question and the dependent variable reflects probability of observing a positive answer. Therefore, the empirical specification of the binary yes/no choice can be formulated in this terms:

$$(1a) \quad P(\text{Yes}|x_i) = F_{\eta}(Z_i) = F(\alpha + \beta x_i) = \frac{1}{1 + e^{-Z_i}}$$

where P_i is the probability of observing a positive answer; $F_{\eta}(\bullet)$ is the value of logistic cumulative density function associated with each possible value of the underlying index Z_i ; X_i is a vector of independent explanatory variables; α is the intercept; β is a vector of unknown parameters, and:

$$(1b) \quad Z_i = \log\left(\frac{P_i}{1 - P_i}\right) = \alpha + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_n x_{in} + \varepsilon$$

Because the data source contains generally individual information, the estimation method of choice ordinarily used is the maximum likelihood method. The dependent variable Z_i in (1) is the logarithm of the probability that a particular choice will be made.

In order to evaluate relationship between some socio-demographic and consumption individual characteristics and propensity to purchase organic products we applied a *logit* model to the data. More specifically, since our finality was to investigate on motivations that drive consumers to buy organic rather than conventional food, we adopted six different logit models (one for each individuated motivation).

In the light of (1), the developed model was described as follows:

$$(2) \quad \text{Motivation}(\text{Yes}|x_i) = \alpha + \beta_1 \text{Knowledge} + \beta_2 \text{Experience} + \beta_3 \text{Frequency} + \beta_4 \text{Organic} + \beta_5 \text{Gender} + \beta_6 \text{Education} + \beta_7 \text{Age} + \beta_8 \text{Household size} + \varepsilon$$

A description of the x_i variables referred to each interviewed consumer is reported in Table 4.

Table 4a - Socio-demographic sample characterization

| VARIABLE | | DESCRIPTION |
|------------|-------|---|
| MOTIVATION | P | it assumes a value equal to 1 in case of positive answer to the question, and 0 otherwise |
| KNOWLEDGE | X_1 | it reflects the question: "How long have you known organic food?" 1 = since 1-3 years; 2 = 3-5 years; 3 = 5 or more years |
| EXPERIENCE | X_2 | it reflects the question: "How long have you purchased organic food?" 1 = less than 1 month; 2 = 1-6 months; 3 = 1-3 years; 4 = more than 3 years |
| FREQUENCY | X_3 | it reflects the question: "How often do you purchase organic food?" 1 = rarely; 2 = about one time every month; 3 = every week; 4 = more than one time every week |
| ORGANIC | X_4 | 1 if consumer usually or always purchase organic food (relative to particular kinds of product) and 0 if otherwise |
| GENDER | X_5 | 1 if male, 0 if female |
| EDUCATION | X_6 | 1 = primary school; 2 = intermediate school; 3 = high school; 4 = graduate college (or post-graduate education) |

Table 4b- Socio-demographic sample characterization

| VARIABLE | DESCRIPTION |
|----------------|---|
| AGE | X ₇ 1 = less than 20 years old; 2 = 21-30 years old; 3 = 31-40 years old; 4 = 41-50 years old; 5 = 51-60 years old; 6 = more than 60 years old |
| HOUSEHOLD SIZE | X ₈ 1 = single; 2 = 2 people; 3 = 3 people; 4 = 4 people; 5 = 5 or more people |

V. MAIN RESULTS AND DISCUSSION

MCA results show how much is difficult to classify organic consumers by the reasons driving the demand. The sum of the eigenvalues of the two dimensions is only 0.51, quite equally divided. Nevertheless, MCA has produced some interesting suggestions: let us take a look at Figure 1 during their discussion. The first dimension (horizontal axis) clearly separates consumers driven by *curiosity* towards organic foods (negative values) from the others, with particular reference to those inspired by the willingness to support *farm incomes*. This result can be interpreted as a clear suggestion to use the first dimension as occasional/regular organic food consumption indicators. The second dimension (vertical axis) is mainly devoted to the identification of buyers aware of *traditional food products*, but gives similar and significant discriminating power to the reasons located at the opposite extremes in the horizontal axis, *i.e.* *curiosity* and *farm income support*. On the other hand, the vertical dimension reserves (low) positive values only to *healthiness* reasons for consuming organic products. For all these arguments it is opportune to read the variables quantification along both dimensions with the aim of drawing different organic food consumers' profiles.

In the first quadrant we can see positive values for both dimensions, what means to identify regular as well as safety sensitive consumers: this profile can be synthesized by the "certified true organic consumer"

label. 43% of costumers surveyed show to belong to this profile. The opposite characteristics can be found in the third quadrant, where *curiosity* is the dominant reason of purchasing organic food. For the customers showing negative values for both dimensions can be proposed the synthetic "extemporaneous organic food consumer" label.

Only 13% of the sample surveyed is located in the third quadrant: it is not a surprising result when considering that interviews have been made in specialized stores mostly patronized by regular consumers. The second quadrant of the Cartesian plan contains positive values of the first dimension together with negative values of the second one.

This means that here one can find regular as well as aware consumers. In other words, people belonging to this profile can be synthetically defined as "solidarity-driven organic food consumers", where this label has to be interpreted in the wide sense of the symbolic meaning given to the organic food purchasing act. The consumers labeled in this way account for the 23% of the sample surveyed.

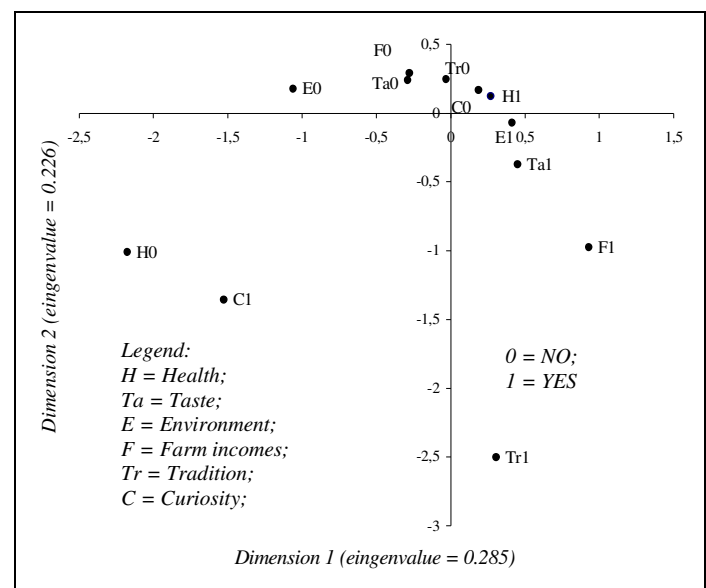


Figure 1- Results arisen from MCA

On the opposite side of the Cartesian space, in the fourth quadrant, we can identify the opposite profile of consumer: not regular as well as healthiness aware. An appropriate label of this kind of customer is "selfish

organic food consumer”. The remaining 21% of the sample survey belong to this profile.

The four consumer profiles designed above can be analyzed in depth by the support of stepwise logit models where the relationships between organic food purchasing reasons and socio-demographic variables are detected. Table 5 summarizes the obtained results. Let us discuss the most important among them.

The p-values associated to the Hosmer-Lemeshow index (with $\alpha = 0.05$) suggests that all the six models should be well calibrated to the data⁴.

The *safety* model confirms the impression given by MCA when first quadrant observations, labeled “certified true organic food consumers” were associated to healthiness reasons for purchasing these kind of goods: safety is strictly related to expert and regular customers of organic food retailers. These results are coherent with the high proportion (89%) of consumers indicating healthiness among the reasons inspiring the choice of organic food. It is a confirmation of several empirical studies on organic food demand [*e.g.*, 4].

The *taste* model tells us that the hedonistic approach is circumscribed to the only expert consumers, who evidently exploit personal satisfaction when eating organic foods.

This fact has to be related to the experience accumulated by this category of individuals: experience supports consumers in the selection of foods; experience gets consumers used to specific tastes and makes them stuck by organic foods. Although taste cannot be considered the most important reason inspiring expert consumers, at least not more than safety, it is a widespread driving factor declared by the surveyed customers. Then, we have to consider it as an additional element completing the shape of the “certified true organic consumer” profile.

The *environment* model offers some interesting results. First, the most significant character related to environment supporting reasons for purchasing organic foods is the household size: singles and low sized rather than large families indicate this factor when justifying their purchasing behavior.

⁴ This statistic examines the difference between the observed frequency and the expected frequency for deciles of data [23]. The value is compared to a χ^2 distribution with g-2 degrees of freedom (g is equal to the number of deciles).

Table 5a - Estimated parameters of the Logit models

| Variables ^a | Safety | | |
|------------------------|-------------|-------|-------|
| | β | S.E. | p |
| Constant | -1.601 | 0.964 | 0.097 |
| Knowledge | - | - | - |
| Purchase experience | 1.071 | 0.289 | 0.000 |
| Frequency | - | - | - |
| Organic | 1.132 | 0.761 | 0.137 |
| Gender | - | - | - |
| Education | - | - | - |
| Age | - | - | - |
| Household size | - | - | - |
| L^2 | -26.317 | | |
| Hosmer-Lemeshow | 0.572 | | |
| Variables ^a | Taste | | |
| | β | S.E. | p |
| Constant | -1.859 | 0.654 | 0.004 |
| Knowledge | - | - | - |
| Purchase experience | 0.521 | 0.222 | 0.019 |
| Frequency | - | - | - |
| Organic | - | - | - |
| Gender | - | - | - |
| Education | - | - | - |
| Age | - | - | - |
| Household size | - | - | - |
| L^2 | -63.846 | | |
| Hosmer-Lemeshow | 0.387 | | |
| Variables ^a | Environment | | |
| | β | S.E. | p |
| Constant | 2.455 | 1.017 | 0.016 |
| Knowledge | - | - | - |
| Purchase experience | 0.336 | 0.230 | 0.144 |
| Frequency | - | - | - |
| Organic | - | - | - |
| Gender | -0.869 | 0.565 | 0.124 |
| Education | - | - | - |
| Age | - | - | - |
| Household size | -0.708 | 0.238 | 0.003 |
| L^2 | -51.967 | | |
| Hosmer-Lemeshow | 0.626 | | |
| Variables ^a | Tradition | | |
| | β | S.E. | p |
| Constant | -8.642 | 3.164 | 0.006 |
| Knowledge | - | - | - |
| Purchase experience | - | - | - |
| Frequency | - | - | - |
| Organic | -1.484 | 0.868 | 0.087 |
| Gender | - | - | - |
| Education | 1.077 | 0.626 | 0.085 |
| Age | 0.872 | 0.385 | 0.024 |
| Household size | - | - | - |
| L^2 | -23.788 | | |
| Hosmer-Lemeshow | 0.529 | | |

Table 5b - Estimated parameters of the Logit models

| Variables ^a | Farm incomes | | |
|------------------------|--------------|--------|-------|
| | β | S.E. | p |
| Constant | 0.883 | 11.858 | 0.001 |
| Knowledge | - | - | - |
| Purchase experience | 0.284 | 5.231 | 0.022 |
| Frequency | - | - | - |
| Organic | - | - | - |
| Gender | - | - | - |
| Education | - | - | - |
| Age | - | - | - |
| Household size | - | - | - |
| L^2 | -50.811 | | |
| Hosmer-Lemeshow | 0.279 | | |
| Variables ^a | Curiosity | | |
| | β | S.E. | p |
| Constant | 0.953 | 0.848 | 0.261 |
| Knowledge | - | - | - |
| Purchase experience | -0.407 | 0.295 | 0.169 |
| Frequency | -0.830 | 0.403 | 0.040 |
| Organic | - | - | - |
| Gender | - | - | - |
| Education | - | - | - |
| Age | - | - | - |
| Household size | - | - | - |
| L^2 | -27.945 | | |
| Hosmer-Lemeshow | 0.475 | | |

This is an interesting result when compared to the findings of some studies carried out in USA [17,25], where a positive relationship between household size and willingness to buy organic products has been observed.

Women and, with a lower degree of significance, expert consumers complete the environment-friendly costumers' profile. Gender is confirmed to be a little contributor to explaining differences in organic purchase behavior [6]. Environment protection is, excluding safety, the most frequently reason declared by the consumers surveyed. Safety and environment protection reasons do not exclude each other, but they can also cohabit in the same individual. Nevertheless, this model gives us some information about the specific characteristics of organic food consumers explicitly aware of environment.

Another symbolic insight of the organic food-purchasing act is the safeguard of traditional agricultural products. Only 9% of individuals surveyed included it among the factors driving their choice in

favor of organic foods. The *tradition* model shows that this reason is preferred by older consumers as well as by individuals who attained a high level of education. The relationship between age and tradition was well expected; on the other side, education is an interesting descriptive parameter of this symbolic purchasing behavior. These results add some information to what observed by different authors [e.g., 26,27] who found that higher educational degree attainment lowers the probability of choosing organic products or of considering organic produce better. Well, here we can find that high educated organic consumers are, most of all, attracted by symbolic motives such as traditional products safeguard. At the same time, traditional products support is not a driving factor for regular organic foods consumers, but seems to characterize the occasional ones.

Farm income support appears to be significantly related to only purchase experience. The model complete the "certified true organic food consumer" profile, giving other elements for the relative characterization and the description of the symbol-driven purchasing behaviors.

The results coming from the *curiosity* model confirm the location of this profile at the opposite side of the Cartesian space, where are located the extemporaneous consumers. Curiosity cannot be a coherent reason for expert and regular customers. The model confirms this argument and does not add more information.

A survey of these results allows us to express some considerations. First, "organic exclusive" consumers look for safety rather than for other contents in the food, with special reference to traditional products support; second, a long experience in consuming organic foods is strictly related to safety and taste reasons for purchasing them; third, regular consumers are conditioned by environmental problems as well as by the willingness to support farm incomes; last, organic foods demonstrate to have attractive power of new consumers when raising curiosity.

Given the importance of price policies, marketing strategies promoting organic food consumption have to consider the characteristic shapes of these profiles. Additional sales can be pursued encouraging higher pro capita consumptions and/or trying to persuade a larger number of consumers. Individual consumption

of organic foods can be stimulated by the promotion of conventional foods substitution in the shopping basket as well as by promoting consumers' loyalty. Price policies are important in this strategy. Moreover, this study suggests some promotional arguments for differentiation strategies aimed to increase individual consumptions: safety certification is a powerful tool for persuading consumer to substitute conventional foods; environment and farm solidarity motives make organic food purchasing an usual and regular consumer's act; a good taste, more generally a good quality food, stimulates the customer's loyalty to organic foods in the long term. A larger number of organic consumers can be attracted by the curiosity that these goods are able to move: aggressive promotional campaigns played on prices, information and tasting panels can produce effective results.

These arguments give the sense of this study: organic food cannot sell itself but needs efficient and customized marketing strategies. An institutional label attached on the organic food packaging is not a sufficient tool for an effective differentiation of supply. Information, quality, promotion, technical efficiency, tailor-made production and distribution, as well as incisive price policies, are some relevant key words of this approach. This is the only way for the true internalization of several external economies produced by multifunctional agriculture.

VI. SOME FINAL REMARKS

This study is devoted to design the motivational profiles of organic food consumers. Four consumers' motivational profiles and several findings have been obtained by the analysis. Among these, some are noteworthy. Safety confirms to be the most important driving factor for organic food consumers. Environment safeguard is less important and distinguishes some segments of customers, such as large families components, women and expert consumers. The latter indicate taste as a relevant requirement of organic foods, which are able to move curiosity of new customers. Symbolic insights, *i.e.* tradition and farm income support, are powerful elements for raising consumers' loyalty and for target segmentation.

All these findings need to be further verified by other wider surveys. Nevertheless, they indicate by now the opportunity of targeted marketing strategies for helping organic foods to enlarge market sizes. The time of the unconditioned public support has gone by and producers have to play their role in the competitive arena. Given that price is still the most important factor for any market enlargement strategy, suppliers cannot ignore the opportunities offered by differentiation any more. A larger organic food market is going to be the basis and the expression of the social acknowledgment of some important agricultural functions, what means to improve the efficiency of policies devoted to promote the European Agricultural Model, *i.e.* sustainable, competitive and rural development promoter.

REFERENCES

1. Willer H., Youssefi M. (eds.) (2007) *The World of Organic Agriculture 2007. Statistics and Emerging Trends*. IFOAM Publication.
2. Sahota A. (2006) *The Global Market for Organic Foods & Drinks*. Oral presentation at the Biofach Conference, Nurnberg, Germany, February 16-19, 2006.
3. Soler F., Gil K.M., Sanchez M. (2002) *Consumer's Acceptability of Organic Food in Spain: Results from an Experimental Auction Market*. *British Food Journal* 104 (8): 670-687.
4. Cicia G., Del Giudice T., Ramunno I., Tagliaferro C. (2006) *Splitting Consumer's Willingness to Pay Premium Price for Organic Products over Purchase Motivations*. Paper discussed at the 98th Seminar of the European Association of Agricultural Economics (EAAE) *Marketing Dynamics within the Global Trading System: New Perspectives*, Chania, Crete, Greece, June 29 - July 2, 2006.
5. Zanolli R., Naspetti S. (2005) *Means-End Chain Analysis: an Application tot the Study of the Organic Consumer*. *Rivista di Economia Agraria* 60 (1): 9-38.
6. Thompson G. (1998) *Consumer Demand for Organic Foods: What We Know and What We Need to Know*. *American Journal of Agricultural Economics* 80 (5): 1113-1118.
7. Dimitri C., Greene C. (2002) *Recent Growth Patterns in the U.S. Organic Foods Market*, USDA. Economic Research Service, Market and trade Economics Division and Resource Economics Division, *Agriculture Information Bulletin* 777.

8. Batte M.T., Hooker N.H., Haab T., Beaverson J. (2007) Putting Their Money Where Their Mouths are: Consumer Willingness to Pay for Multi-Ingredient, Processed Organic Food Products. *Food Policy* 32 (2): 145-159.
9. Underhill S., Figueroa E.E. (1996) Consumer Preferences for Non-conventionally Grown Produce. *Journal of Food Distribution Research* 27 (2): 56-66.
10. Govindasamy R., Italia J. (1999). Predicting Willingness to Pay a Premium for Organically Grown Fresh Produce. *Journal of Food Distribution Research* 30 (2): 44-53.
11. Gil J.M., Gracia A., Sanchez M. (2000) Market Segmentation and Willingness to Pay for Organic Products in Spain. *International Food and Agribusiness Management Review* 3 (2): 207-226.
12. Loureiro M., Hine S.E. (2002) Discovering Niche Markets: A Comparison of Consumer Willingness to Pay for Local (Colorado Grown) Organic, and GMO-Free Product. *Journal of Agricultural & Applied Economics* 34 (3): 477-487.
13. Gil J.M., Soler F. (2006) Knowledge and Willingness to Pay for Organic Food in Spain: Evidence from Experimental Auctions. *Food Economics – Acta Agriculturae Scandinavica C* 3 (3/4): 109-124
14. Rodriguez E., Lacaze V., Lupin B. (2007) Willingness to Pay for Organic Food in Argentina: Evidence from a Consumer Survey. Paper discussed at the 105th Seminar of the European Association of Agricultural Economists (EAAE) “International Marketing and International Trade of Quality Food Products”, Bologne, Italy, March 8-10, 2007.
15. Shuzzler A., Govindasamy R., Adelaja A. (2003) A Comparative Evaluation of Organic Produce Consumers in New Jersey to New York and Pennsylvania. *Journal of Food Distribution Research* 34 (1): 153-162.
16. Byrne P.J., Toensmeyer U.C., German C.L., Reed Muller H. (1992) Evaluation of Consumer Attitudes Towards Organic Produce in Delaware and the Delmarva Region. *Journal of Food Distribution Research* 23 (1): 29-44.
17. Huang C.L. (1996) Consumer preferences and Attitudes Towards Organically Grown Products. *European Review of Agricultural Economics* 23 (3): 331-342.
18. Williams P.R.D., Hammitt J.K. (2000) A Comparison of Organic and Conventional Fresh produce Buyers in the Boston Area. *Risk Analysis* 20 (5): 735-746.
19. Wang Q., Sun J. (2003) Consumer Preferences and Demand for Organic Food: Evidence from a Vermont Survey. Paper discussed at the American Agricultural Economics Association (AAEA) Annual Meeting, Montreal, Canada, July 27-30, 2003.
20. Roitner-Schobesberger B., Darnhofer I., Somsook S., Vogl C.R. (2008) Consumer Perceptions of Organic Foods in Bangkok, Thailand. *Food Policy* 33 (2): 112-121
21. Abdi H., Valentin D. (2007) Multiple Correspondence Analysis. in Salkind N. (ed.) *Encyclopedia of Measurement and Statistics*. Thousand Oaks (CA), Sage.
22. Greenacre M.J. (1984) *Theory and Application of Correspondence Analysis*. London, Academic Press.
23. Maddala G. S. (1983) *Limited-Dependent and Quantitative Variables in Econometrics*. Cambridge, University Press.
24. Hosmer D.W., Lemeshow S. (1989) *Applied logistic Regression*. New York, John Wiley & Sons, Inc.
25. Thompson G., Kidwell J. (1998) Explaining the Choice of Organic Produce: Cosmetic Defects, Prices, and Consumer Preferences. *American Journal of Agricultural Economics* 80 (2): 277-278.
26. Byrne P.J., Bacon J.R., Toensmeyer U.C. (1991) Analysis of Consumer Attitudes Towards Organic Produce and Purchase Likelihood. *Journal of Food Distribution Research* 22 (1): 49-62.
27. Groff A.J., Kreider C.R., Toensmeyer U.C. (1993) Analysis of the Delaware Market for Organically Grown Produce. *Journal of Food Distribution Research* 24 (2): 118-125.