Private label organic food products: profile and behaviour of Italian consumers characterized through a multivariate approach

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Abstract: This paper analyses data collected across a panel of 1.000 representative Italian family units, gathered by means of electronic questionnaires. The contents of the surveyed data were in relation to individuals' consumption and purchasing behaviour in regards to organic and conventional food products. The general objective of the research has been primarily to characterize trends emanating from the surveyed results, and secondly to explore the possibility of reducing the number of the variables without losing statistical information from the data. Through the multiple correspondences analysis the complex space of the variables has been reduced to two main factors that explain the greater part of the inertia of the data. In addition, the number of consumers is categorised into five clusters, in order to evidence and to synthesize their total behaviours or attitudes.

1 Aim and context

The objective of this research paper is to analyze the preferences of customers of a large-scale retail trade (GDO italian acronym) of private label "organic" products. Recently, in fact, "the guaranteed" organic products from the brand of the distributor seemed to satisfy the interests' of consumers. This evidence is supported from the progressive broadening of the categories and products offered by GDO with prices remaining contained (similar to those of other producer's brand) than of those offered via specialized channels. The purchase decisions that influence the choice of private label are quality and price. These factors can act separately or in combination with each other. Their relationship expresses the opportunity cost of goods. Furthermore, the choice of the commercial brand is influenced from exogenous factors like the social and cultural context, behavioural and cognitive context of the consumers. These factors expose the consumers to the so-called social risk. There exists the danger of loss of status as a result of the consumption of assets not adapted to the social position. Therefore, when economic convenience and product quality are high, if the symbolic value of the chosen goods is particularly important, consumers prefer to acquire producer's brands (specialized distribution) rather than "private" brands. The fundamental elements that, therefore, have characterized this research can be solved by

addressing the following two issues: the interest of the GDO to introduce strategies for private brands in the context of the organic categories, in order to find an effective answer in consumption behaviour; and the ability to characterize the profile of the consumer interested in the private label organic food products (PLO).

2 Survey, questionnaire and descriptive analysis

The survey has been commissioned to an institute specializing in market research (CRA of Milan), by means of a specific electronic questionnaire, across a panel of 1.000 representative Italian family units. The questionnaire has been articulated in different sections, where one of the general characteristics sought after was the identification of acquaintance or familiarity with organic products. In addition the survey aimed focus on the geographic, social, demographic and economic aspects of the population surveyed.
A preliminary descriptive analysis on the elementary data has evidenced some interesting findings:

- the weight of organic products on the food expense is still meagre, considering that for 62% of the sample it does not exceed 20% of the total;
- the GDO is the place more frequented by consumers for their food purchases, considered that only 6% of the sample have answered to buying through a specialized store, 2% in suburban street markets and 1% in periodical markets;
- the commercial category of the GDO mainly attended is supermarkets (69%), followed by hypermarkets (43%) and mini markets (10%);
- the sample is concentrated on three chains of hypermarkets (IPERCOOP, AUCHAN and CARREFOUR), while appearing more distributed in supermarkets, evidenced by the prevalence of COOP, followed by CONAD;
- the private label products (PL) constitute more than half of the food expense only in the 8% of the sample. However, in the composition of the food expense for 46% of families, such products constitute at least one fifth of the total;
- consumers recognize the PL attributes of convenience and safety;
- the conventional PL products well known are pasta and rice, fruit and vegetables, milk, oil, yoghurt, fresh meats and eggs, but only the first two categories are frequently acquired;
- PLO recognised are fruit and vegetables, eggs and yoghurt, however, only the first category (with fresh meats) is acquired with regularity.

Such evidence apart from indicating the variety of consumption behaviours, has allowed the orientation in formulating the multivariate analysis. Firstly the multivariate analysis has been finalized to reduce the number of variables into a few factors to interpret the complex studied context and, subsequently, to evidence the various profiles of consumption.

3 Method and Outcomes

The variables observed are mostly categorical, for this reason Multiple Correspondences Analysis (MCA) has been used. It has been applied to a sub-sample of 287 cases (34% of the sample), constructed exclusively on the base of the meaningful answers from the research purposes. The aim of this analysis it to synthesize common information of

indicators and occasions by means of a reduce set of components.

Therefore, the data have been selected from all the cases in which respondents have declared the following:

- to know the organic products;
- to have acquired at least once organic product for themselves or for their family;
- to prefer the GDO for food supplying;
- to at least know one of the private label products present in the list contained in the questionnaire.

There were 31 variable (75 modalities)[1] considered regarding:

- the behaviours of purchases relative to the organic products;
- the emotional involvement for the organic products;
- the main retailer brand of the GDO (excluded those with less of 5% response);
- the conditioning of brand in the "organic" purchases;
- PL/ PLO known/acquired.

Furthermore, 15 variable illustrations have been considered regarding the eventual association and participation of environmentalists from those interviewed, let alone, the main geographic, demographic and associated economic aspects regarding the respondents.

The MCA was chosen in order to explore and to describe the data, identifying latent indicators which account for the most relevant information in the original data. Component scores can be arranged into a new data matrix, which then leads to a reduced number of latent variables. The results provide information which allows further exploring of the structure categorical variables examined.

The MCA has allowed the location of two main factors that explains 82% of inertia (modified)[2], expression, respective of the "loyalty to the GDO" and of the "emotional involvement for the organic products".

The aim, furthermore, with the aid of the Cluster Analysis using a hierarchical algorithm ancestor[3], has been to characterize five various profiles of customers of GDO. The procedure used has allowed the consolidation of the obtained groups:

1. PL loyal consumers interested in organic foods (11% of the sample): they know and they acquire PL and PLO;

2. PL loyal consumers (6%): they know and they acquire PL, but not the PLO;

3. PL not interested (16%): they know the PL, but they do not acquire it;

4. PL Indifferent (36%): they do not know the PL at all;

5. PLO willing to be convinced (31%): they know and they acquire only some categories of PLO (vegetables and fruit), are sensitive to the organic ones and they are pushed from brand in the purchase of the organic products.

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[1] Initially they were 108. It has been thought opportune to carry out the "ventilation" of the variable-modalities with low frequencies (inferior to 2%) in order to contribute meaningfully to the definition of the factorial axis; such procedure supplies therefore to signal the modalities "to ventilate" and inside concurs the redistribution of the cases to relative they of the remaining modalities.

[2] The percentage of explained inertia is modified applying the optimistic formula of Benzécri.

[3] It is preferred to use such algorithm because the data set is of small dimensions and it is not in a position to fixing at the beginning the number of groups to construct.
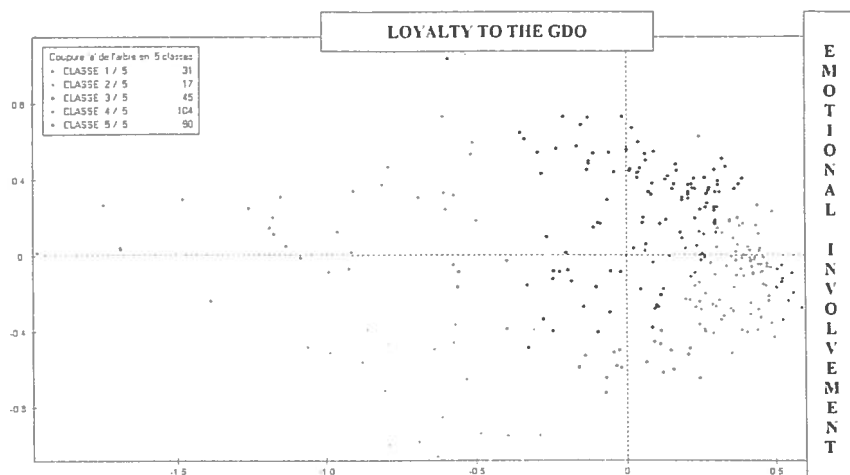
4. Conclusion

The results of the research work have provided an effective verification of weak consumer interest towards organic food products. The MCA's results provide information which allows exploring the structure categorical variables examined, locating two main expression factors, respective of the loyalty to the GDO and of the emotional sentiment towards organic products. To such aim, furthermore, with the aid of the Cluster Analysis has been characterizes five various profiles of customers of GDO. Among the various profiles of the GDO customers it has been possible to conclude that consumers purchasing behaviour in regards to organic food products is enhanced when the distribution of the product is facilitated through GDO. These findings provide invaluable insight to all stakeholders in organic production system which if used effectively this information could be harnessed to achieve greater sales and improve profitability. Such findings therefore constitute the starting point for further studies. The multivariate analysis represents a relevant instrument in the agricultural and food production in order to consolidate the strategies of enhancing the image or valuation of the organic food.

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