Consumers' purchase behaviour towards typical foods in mass marketing : the case of PDQ *Camembert* from Normandy

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Abstract

Consumers' attitude seems positive towards origin labelled products. The observation of the market's shares however lets appear a less favourable reality. The study is based on single source data. A scanned data consumers' panel is used to record purchases and preferences in mass marketing. Origin labelled products are really appreciated, or rejected by consumers, but do not leave consumers indifferent. Marketing strategies thus could be conducted towards increased consumers loyalty and attraction of new consumers, but the number of consumers buying them will remain small. Hedonic ratings obtained by the preferences tests reveal that origin labelled products do not obtain the highest ratings. Efforts should thus be directed towards a better response to consumers' desires. Last, even if origin labelled products take some advantage of their identification, their image is not as good as national leaders image, so communication efforts should also be made.

Keywords : panel, origin, label, consumer preferences

INTRODUCTION

The origin labelled foodstuffs have a good image. Consumers' attitude seems positive towards such products. The observation of the market's shares however lets appear a less favourable reality. How the consumers behave in front of shelves? Do they appreciate as much the origin labelled products as they declare it? Which are their effective purchases towards these products? This is the kind of questions we had the opportunity to answer within a program entitled *Purchase Behaviour of a Scanned Data Consumers' Panel*, supported by the French Government (programme Aliment Demain). The partners were ENITA of Clermont-Ferrand, AUCHAN group (distributor), INRA, ENSA of Montpellier and University B. Pascal.

1. Monitoring a scanned data consumers panel

The objective is to record over one year the consumers' purchase behaviour. The observation relates to the choice within typical products with Protected Designation of Origin (PDO) face to national leader and private label of distributor. The study is based on single source data (Gupta *et alii*, 1996). A scanned data consumers' panel is used to record purchases in mass marketing.

The cross-identification of each panellist by means of his/her credit card and of each product bought by means of optical scanner when the panellist pays at the cash desk, allows to know who buys what, where, when and how much. For each panellist four types of data are recorded on sociodemographic, purchases, sensory and attitude (Figure 1). It becomes possible to compare declared, sensory and effective preferences.

The protocol consists of :

a. Selection of the panel

The panel is built with the frequent purchasers of the products selected. They are volunteers and chosen among the holders of the distributor's credit card. The panel counts 577 consumers from three stores located in different French regions.

b. Selection of the products

The study deals with *Camembert* cheese and dry pork sausage. Only the results relating to *Camembert* and its substitutes are presented here. A national leader, a private label and a product with a PDO are compared.

c. Observation of the purchases

The data of panellists' purchases are collected in the three stores during 12 months. They relate to the whole family of *Camembert* cheeses in addition to the products chosen for the hedonic test.

d. Hedonic test

The hedonic test is carried out in three waves, one in medium of observation, the others at the end. The first two waves are blind tests, the last one with identified products. It is an in-shop test with 323 volunteers among the 577 panellists. For each test, the panellist has five samples to taste. The first is systematically a *Camembert* with lowest price in way of training. Then come the national leader, the private label and the PDO product in an experimentally controlled order. The last sample is always the product most bought by the panellist ; it is thus variable from one panellist to another.

e. In-depth interview

At the end of the observation, a face to face semi-structured interview is carried out at home with 124 volunteers among the 323 tasters. The objective is the elicitation of the purchase's patterns.

The program is finishing at the end of 1999, only some results are presented here ; the statistical data remain confidential. Coherence between the observed and the verbalised choices is measured. The change between the blind test preferences and the preferences on identified products is pointed out.

Figure 1: Protocol of the project *Purchase Behaviour of a Scanned Data Consumers' Panel*

Observation of the purchases — 577 panellists

October 1997 — August 1998

Hedonic test — 323 tasters

January 1998 — May 1998

In depth interview — 124 households

June-July 1998

Source : Aliment Demain R97/07, ENITA Clermont-Ferrand

2. PURCHASES OF THE PANEL

Four categories are defined among the supply of *Camembert*. "NL" gathers the well-known labelled products from the National Leaders of the dairy industry. "PL" represents the distributor's Private Label products. "PDO" gathers the products with a Protected Designation of Origin: *Camembert from Normandy*. Finally, "LP" represents the products with the Lowest Price.

Table:1: Panel's *Camembert* purchases according to the product category (%)

Product category	%	Number of references
National Leader (NL)	47,6%	9
Private Label (PL)	31,7%	3
Protected Designation of Origin (PDO)	9,0%	4
Lowest Price (LP)	11,7%	3

Source: Aliment Demain R97/07, ENITA Clermont-Ferrand

The panel bought around 7300 *Camembert* cheeses during one year (Table 1). The National Leader is the first category (47,6% with 9 references). The Private Label category obtains a good market share (31,7% with 3 references). The PDO products represent a niche of 9 % of the panel's purchases (with 4 references). The Lowest Price category seems appealing (11,7% with 3 references).

A partition of the panel is made in order to reveal five types of consumer based on the purchases. The type is given according to one criterion: the consumer makes 50% or more of his/her purchases in the concerned product category (Table 2). Thus, the established partition is founded on the effective purchases, not on the attitudes (interview) or on the preferences (hedonic test).

Table 2: Partition of the panel

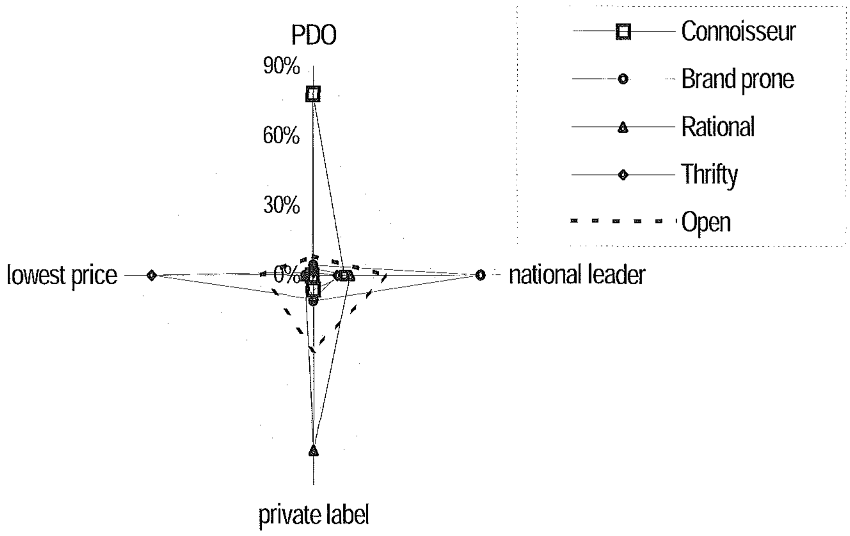
Consumer type	Partition criterion: makes x% of his/her purchases	Nb of panellists
Connoisseur	50% or more in only PDO category	57
Brand prone	50% or more in only NL category	276
Rational	50% or more in only PL category	113
Thrifty	50% or more in only LP category	54
Open	less than 50% in each category or 50/50 in 2 categories	55

Source: Aliment Demain R97/07, ENITA Clermont-Ferrand

The *Connoisseur* type concerns the panellists whose purchases over the period observed are 50% or more from only "PDO" category. The *Brand prone* type indicates the panellists whose purchases are 50% or more from only "NL" category. The *Brand prone* term comes from the advertising supported by the large national brands. The *Rational* type refers to the panellists whose purchases are 50% or more from only "PL" category. The *Rational* term is due regard to the *value for money* ratio of this product category. The *Thrifty* type designates the panellists whose purchases are 50% or more from only "LP" category. The *Open* type concerns the panellists whose purchases are less than 50% from each category or equally divided in two categories. The *Open* term expresses here a non-dominant choice. Consumer types and product categories are not equivalent. For instance, the panellists from *Connoisseur* type are not the only ones buyers of PDO products. They can purchase other products, sometimes the cheapest ones.

The distribution of the panel's purchases according to the product category and to the consumer type shows a great specialisation of the choices (Figure 2). The *Connoisseur* type makes 78,2% of his purchases in the PDO category. The *Brand prone* type directs 80,8% of his purchases towards the National Leader category. The *Rational* type chooses 75,2% of his *Camembert* among the Private Label category. The *Thrifty* type buys 77,0% of his cheeses in the Lowest Price category. The *Open* type does not have by definition a dominant category of purchase.

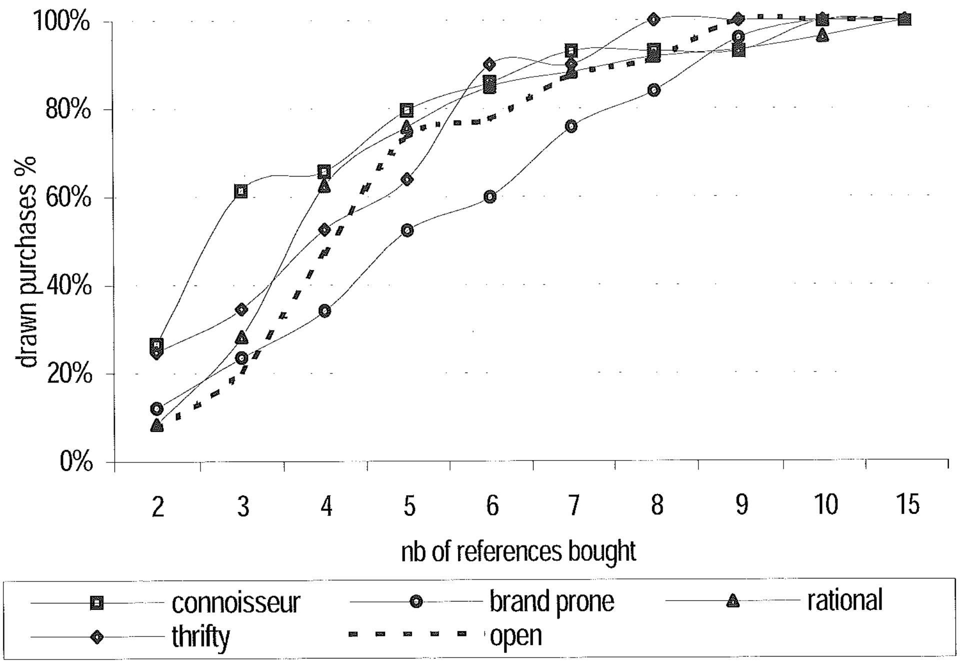
Figure 2: Panel's purchases distribution according to the product category and the consumer type (%), *Camembert*, n = 555 respondents



Source : Aliment Demain R97/07, ENITA Clermont-Ferrand

All occurs as if the consumer limits his choice within a favoured category, even if it means to vary his purchases among the brands available in this category on the shelves. When the panellists open their choice of *Camembert* apart from their favoured category, it is very often towards the National Leader category. PDO *Camembert* cheese does not always belong to the consumers' purchase set. The choice sought by each one is restricted even if the distributor must present a very broad range to satisfy all the customers or to accentuate the differentiation of his image (Filser, 1998). The panellists make 80% of their *Camembert* purchases with only five different references and 90% with seven references (Figure 3).

Figure 3: Apparent variety seeking towards *Camembert* cheese according to the consumer type, n = 413 respondents with two bought references or more



Source : Aliment Demain R97/07, ENITA Clermont-Ferrand

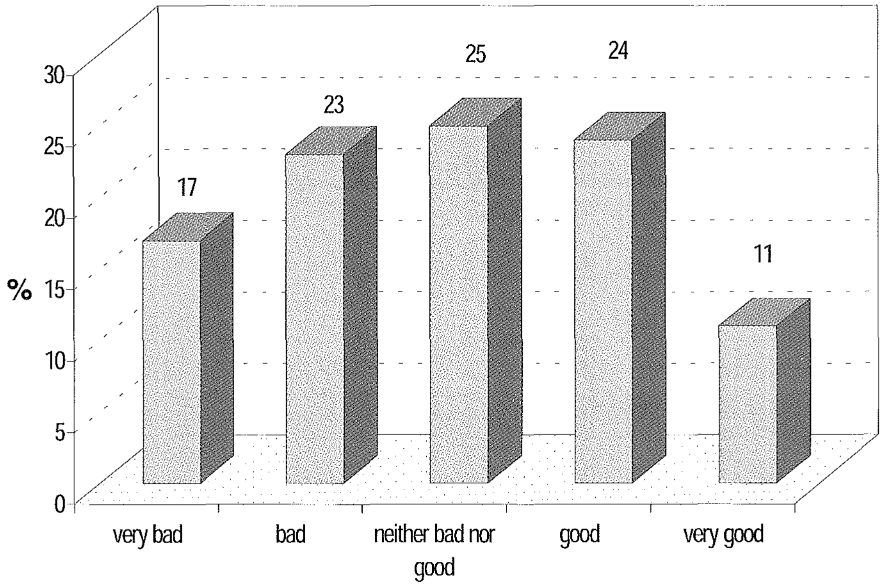
The *Brand prone* type purchases are spread over different brands. The apparent variety seeking seems related to the purchases towards the well-known brands. The *Connoisseur* type appears to be the one for which the apparent variety seeking is limited. Does the PDO oriented consumer cannot find any additional satisfaction in other brands?

The measurement of the variety seeking was carried out on the basis of panel data. It means that only a variety seeking restricted with the family of *Camembert* can be highlighted, without a more extended one to the whole of cheeses.

3. CONSUMERS HEDONIC RATINGS

Camembert with PDO is accepted by 60% of the panellists who tasted products (Figure 4). PDO products are really appreciated by 35 % of the panellists, and rejected by 40 %. Origin labelled products are typical, and have character. For *Camembert*, it often means they have a strong taste. This character strongly attracts or repels, but does not leave consumers indifferent.

Figure 4: Hedonic ratings (%), *Camembert* with PDO, n=306 respondents



Source : Aliment Demain R97/07, ENITA Clermont-Ferrand

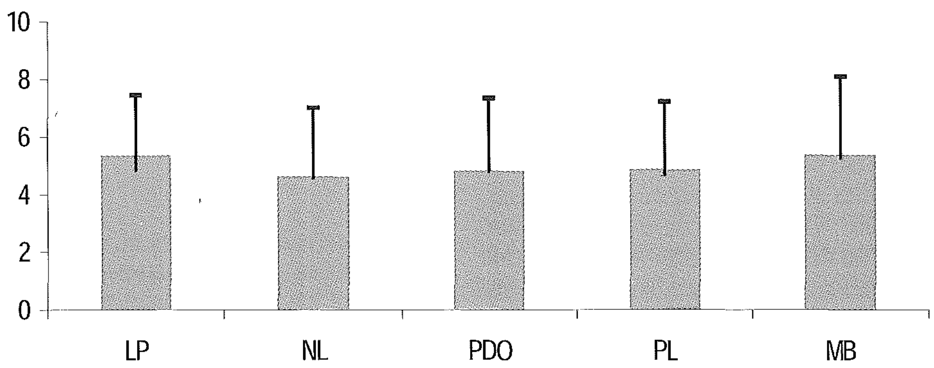
Hedonic ratings for *Camembert* with PDO strongly vary according to the maturity of the product: both too young products and too ripe products are rejected. It is thus important to be sure that products offered to customers in shops are neither too young, nor too ripe. For other products (lowest price, national leader and private label), the age effect is less important.

Compared to other products (low price, national leader and private label), *Camembert* with PDO obtains average ratings (Figure 5). The lowest price cheese may be overestimated, as it was systematically the first one to be tasted. Besides, hedonic ratings for this cheese reveal the lowest standard deviation.

When the order effect is controlled, the national leader product obtains the lowest rating while the private label obtains the highest score. *Camembert* with PDO obtains ratings close to Private Label ratings, but with the highest standard deviation (the same as the most bought product). This confirms the fact that this product does not leave consumers indifferent.

As expected, the most bought product obtains the highest rating, with the highest deviation. When the rating is low, two reasons may be suggested: a boredom effect since this product always was the last one to be tested, or different tastes in the family: the respondent may be the buyer, and the most bought product appreciated by other persons in the family.

Figure 5: Hedonic ratings for the five product categories (average rating and standard deviation), *Camembert*, n = 306 respondents

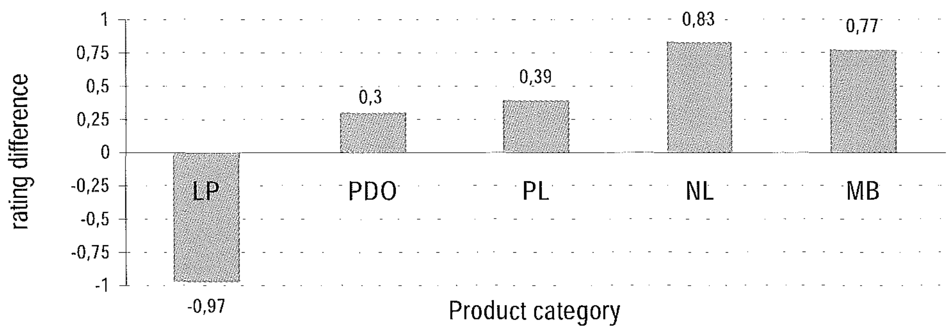


LP Lowest Price, NL National Leader, PDO Protected Designation of Origin, PL Private Label, MB Most Bought

Source: Aliment Demain R97/07, ENITA Clermont-Ferrand

Another important result is related with the influence of received information on consumer ratings, confirming Daillant-Spinnler and Issanchou results (1995). For the third test, consumers had the possibility of reading the name of the products, and gave higher ratings to well-known labelled products (national leader products) than during the blind test. Private Label products and even more PDO products do not take such an advantage of their name. Lowest Price products obtain lower ratings when the test is conducted with identified products. Last, the Most Bought products obtain higher ratings when they are identified, and this result has to be related with an already high rating during the blind test (Figure 6).

Figure 6: Brand name effect: ratings differences between blind and identified products tests, *Camembert*, n = 306 respondents



LP Lowest Price, PDO Protected Designation of Origin, PL Private Label, NL National Leader, MB Most Bought

Source : Aliment Demain R97/07, ENITA Clermont-Ferrand

Thus, PDO products seem to be differently appreciated during blind tests, and to take some advantage of their identification. They are important for the credibility of the store (Giraud *et alii*, 1997), but do not attract a large number of customers: sales seem to be more related to the consumer loyalty than to the number of consumers buying them.

Preference tests with hedonic ratings allow to complete information on purchase behaviour from the scanned panel. But they are not sufficient, since they are based on ratings given to products during experimental tests, without any link with usual consumption situation (Köster, 1996). So there is a need for more information on consumers' preferences and consumption situations, which can be obtained by face to face interviews.

4. DECLARED PREFERENCES

Panel data give information on consumer behaviour, but do not allow to explain it. These data are completed with hedonic tests, but since the person who buys and is selected for the test may buy the products for other consumers in the family, face to face interviews are needed to identify within a family consumers and their preferences, and consumption practices. Thus, at home face to face interviews allow to distinguish between family and individual levels, and between buying and consuming.

To reduce the problems related to this kind of interviews (efforts asked by opened questions in terms of memory ...), closed and open-ended questions were combined, and for questions related to stores or products, consumers had the possibility of seeing them with photographs. During these semi-structured interviews, respondents were asked to give information on their buying behaviour, in their main store, but also in other stores.

Two main differences appear between declared behaviour by respondents and the purchase behaviour observed with the scanned panel:

- Private Label products are more frequently bought than what appears in the interviews ;
- A lot of consumers declare themselves loyal to a brand, while real data show they often change.

Besides, data from interviews allow to complete data from the panel. The panel only shows buying changes within the family of *Camembert*, while during interviews, some consumers explained they often seek variety and buy products in other cheese families. Interviews data also allow to explain variations during the year: for a large number of respondents, *Camembert* is associated with consumption situations (like picnic, or ordinary meal) but totally rejected for other situations like Christmas holidays because consumers see *Camembert* as an ordinary product.

From a methodological point of view, the comparison between these results is interesting, and brings up the question of the interpretation of these differences. For example, the difference between real and declared level of buying of Private Label products may reveal different problems. Consumers may not remember this product is the one they buy: the Private Label suffers from an awareness problem. Consumers may also not be willing to declare they buy this product ; this attitude reveals an image problem. In both cases, retailers have to make efforts if they want their label to be seen as a real brand.

CONCLUSION

PDO products are really appreciated, or rejected by consumers, but do not leave consumers indifferent. They seem to be differently appreciated during blind tests, but they take some advantage of their identification. Their benefit from a good image in the consumers' mind is positive, they can be important for the credibility of the store, but they do not attract a large number of customers. Marketing strategies thus could be conducted towards increased consumers loyalty and attraction of new consumers, but the number of consumers buying them will remain small.

Hedonic ratings obtained by the preferences tests reveal that PDO products do not obtain the highest ratings. Thus, efforts should be directed towards a better response to consumers' desires. Last, even if origin labelled products take some advantage of their identification, for the most of customers, their image is not as good as national leaders image, so communication efforts should also be made.

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