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PUBLIC QUALITY LABELS: SHOULD STORES' OWN BRAND NAMES BE FEARED?

Public quality labels are used to point out specific market segmentations: land, Bio, and taste quality. Their success in the retail industry prompts stores to use them as part of their own brand range. The food-processing industries fear that producing them as stores' own brands could run down their image. This paper shows, by analysing 6 products, that the supermarkets strategy is not to undercut the official quality brand names.

Since the 1980's, Public Quality Labels (PQL) have increasingly aroused interest. The application field of the Product Denomination of Origin (PDO), created in 1935 for viniculture and opened to cheese in 1960, was extended to the whole range of products in 1990. At present, there are 545 PDO, of which 400 are wines, 42 are dairy products and 19 are fruit and vegetables. The "Red Label" (in the 1960's), created first for chicken meat, has been extended to other products such as cooked meats and dairy products. Furthermore, new public labels of quality were created: "Bio" and the Product Compliance Certificate ("Certificat de conformité des produits") in 1980 and 1988 respectively. Finally, this system of quality labelling has been extended to apply at the European level through a similar system relying on the Bio, the PDO and the Protected Geographical Indication (PGI), another signal of geographical origin, less demanding than the PDO. This renewal in interest for PQL has mobilized the attention of the retail industry. Not only to sell this type of product under national brands (NB) but also to have them processed and sold under stores' own brand names (SB).

Contrary to NB that consumers can find in most stores, SB are store specific. The SB boom started in 1976 with Carrefour's launching of "free products". Since then, their progression has been constant. In the food-processing industry, their market share per volume stands at 25%. After taking an exclusive stand in price and low quality, SB have targeted a standard quality, copying that of national medium-range brands. Lately, they have also tried to fill gaps left in the higher quality range as shown by the launching of certain reserved trademarks (such as "Reflets de France" at Carrefour, "Gourmets" at Monoprix…) and the launching of niche products such as "Saveurs d'Ailleurs" at Casino. The introduction of PQL is part of this strategy.

Confronted with the supermarkets' negotiating power, producers, although hostile to the idea of producing for SB, have been resolved to do so. In the cheese sector, the powerful union of Roquefort producers gave way in 1995. However, hostility from the food-processing industries is still intense. It relies on the belief that selling PQL products under SB leads inevitably to the dumbing down of quality labelling. Is this idea justified?

The loss of identity of a product would be linked to the image of SB, associated, in the consumer's mind, with low quality. Yet, surveys on SB purchasing motivation put this opinion into perspective, quality remaining an important criterion for consumer choice. On the supply side, a 20% price differential between SB and NB can be easily explained by factors other than quality. First of all, small and medium-sized firms are given first priority to produce SB products without, however, any negotiating power on their margins, which helps lower wholesale prices. Furthermore, innovation costs on SB are slight, receipts being mostly based on existing products. Lastly, advertising costs and backdoor margins are non-existent. Secondly, what is feared is a crushing of the price differential between PQL products and standard products. Yet for the consumer, the price represents a strong sign of quality. Moreover, covering the costs respecting the PQL specifications and the incentive for quality depend directly on this price differential. The aim of this research is to compare the PQL valuation through SB and NB. These attributes of the products do not have any observable market price. The hedonic price method helps estimate their concealed or implicit price. This estimate relies on purchasing data from "Sécodip", a consumer panel (see: methodological frame).

For our survey, products must be classed in each of the four following categories: national brand with or without PQL and store brand with or without PQL. Six convenience products meet this requirement: milk, yoghurt, eggs, cooked ham, cured ham and Camembert (cheese). These products reflect the diversity of public quality labels: Bio label (3 products), PDO, PGI and "Red

label". With regard to the brands, other than NB or SB, there are two other brands: the HD (hard discount), exclusively sold by stores of the same name and the "lowest price" brand sold in classical stores to check the progress of HD (see data given in table 1).

For these six convenience products, the SB share stretches from 23% to 49,5%.The PQL market share is weak as far as the label Bio products are concerned (lower than 5%), it rises to 8,5% for "Red label" and reaches 11% for PDO products. The goods are mainly sold in hypermarkets and supermarkets which together represent, for each product, more than 80% of the market. The traditional grocers hold a marginal market share. The hard discounters' (HD) share of the market, between 8% and 19%, represents the recent progress of this type of retail.

A bonus for PQL sold under SB

The specifications used to formulate the model are the following: the purchasing place (hypermarket, supermarket or hard discount), the brand (NB or SB or HD), the presence or not of PQL, as well as certain characteristics specific to each product (type of packaging, conditioning etc.). To measure the interaction between a PQL and the brand with which it is associated, we introduce two cross effects, PQL*NB and PQL*SB. These effects measure the increase or decrease in value that these two brands bring to the PQL value. For technical reasons, only one cross effect is estimated (PQL*NB), the other being equal to zero. Moreover, the hedonic price method supposes the choice of a reference product. We have chosen a product sold under the brand "lowest price", without PQL.

Methodological frame

The hedonic price model

The hedonic price model is often used in Economics of quality. It relies on the idea, phrased by Lancaster, according to which the consumer demand is not aimed at the product itself but at its characteristics or at the quality attributes it contains. For instance, the demand for an apartment can be broken down into a demand for a certain surface area, some components of comfort, on a certain floor whose value depends on whether there is an elevator or not, on the distance from public transport, etc. These different attributes have no market price. However, when one has price data on different types of apartment, it is possible to determine by linear regression the effect on the price of the introduction of a given characteristic unit. If p is the price of the product and $Z = (z1, \ldots , zn)$ the vector of theses characteristics, the equation of the estimated price is $p = p (Z)$.The derivative of the hedonic price function in relation to each characteristic measures its implicit price. Under certain conditions, the latter can be interpreted as measuring the marginal use of a complementary unit of this attribute for the consumer. Rosen (1974) has formulated the reference model within a context of perfect competition. Since then, other works have taken an interest in the case of imperfect competition.

The Sécodip panel brings together 8000 households who make a daily record of their purchases of a great number of products, particularly food. For each purchase, the panel enquires as to the date, the place, the brand, the presence or absence of quality labelling, whether there has been a special offer from which the purchaser might have benefited and the price, as well as many other parameters concerning the type of product (such as the packaging, the size of packs etc.). This survey uses data from the year 2000.

The second table gives us a summarized presentation of the results. It indicates NB and SB prices, each PQL price for a targeted product and the value of the interaction PQL*NB. Not surprisingly, the value of the NB is, in 5 out of 6 cases, higher than the SB. The only exception is that of staple milk which often benefits, when sold under SB, from a Mountain label that increases the perceived quality and price. However, contrary to what might have been expected, the PQL*NB, interaction is negative in 4 out of 6 cases. That indicates that the valorisation of the PQL by the SB is, on the whole, better than that obtained by the NB. The differential stretches from 5% to 37% of the implicit PQL price. For another product (eggs), the valorisation is identical. In only one case, (dried ham) does NB get a distinctly higher premium for the IGP, than SB. In Figure 1, and using results from table 2, we represent the building of prices in NB and SB, for the standard and "Red label" cooked ham markets. To estimate these prices we add the hedonic attributes prices to that of the reference product.

Principal and secondary national brands

The previous result is reinforced when the heterogeneity of national brands is taken into account. On most of the markets, there exist, in fact, a small number of strong brands and a competitive fringe composed of a great number of firms whose market share is small. For the 6 products, the breaking point is around 3%. Below this threshold, we are inside the competitive fringe. Above, a small number of firms (less than 5) hold at least 20% of the market.

We classify the brands which have a market share higher than 3% in the category Leading National Brands (LNB) and the others in the category Secondary National Brands. For yoghurt, for example, for which the concentration of firms is quite high, three brands have been considered as LNB; they represent a 61.1% share of the market. Table 3 shows a summary of the results obtained from this typology of national brands.

The LNB's reputation allows for a stronger value of the "brand" attribute: the ratio LNB/SB is always stronger than the ratio NB/SB. The decrease in value of the PQS in LNB compared to SB is reinforced in comparative situations when the whole NB is taken into account. Moreover, this result has been verified in the case of IGP dried ham.

Labelling strategies and the decreasing output of quality labelling

Thus, the strategy of labelling is not to undercut PQS. On the contrary, within the SB range, the retail industry is intensifying the price differentiation between products under PQS and standard products comparative to NB. This strategy relies on a self-sufficient mechanism of modification of the consumer's willingness to pay when faced with several quality labels instead of one. Indeed,

national brands, certainly the most important, already constitute a sign of quality for the consumer. The assurance it guaranties for the consumer is not the result of requirements laid down by the State but rather of its reputation. In which case, the addition of an official quality sign is somewhat superfluous: the willingness to pay for both labels can be weaker than when each label appears alone. This principle of the decreasing output of quality labelling does not exist in the case of SB which are generally associated with standard quality. The fear of the food-processing firms of the loss of identity of official quality labels, when associated with a store brand, is not justified.

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For more information

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Table 1: Characteristics of six studied products

	Yoghurt	Egg	Milk	Camembert	Cooked Ham	Dried Ham
PQL	Bio	Bio	Bio	AOC	"Red label"	IGP
			Brands (%)			
NB	64	53	30	57,5	31	39
SB	24	36	23	28	49,5	33
Hard Discount	10	5	10	8	15,5	12
Lowest prices	2	6	37	6,5	4	16
			Type of product (%)			
Under PQL	1	5	2	11	8,5	6,5
Standard	99	95	98	89	91,5	93,5
			Distribution channels in (%)			
Hypermarket	48,5	46	44	46	49	46
Supermarket	38	38	41	43	35	34
Hard discount	12	13	13	8	15	19
Traditional grocers	1,5	3	2	3	1	1
Number of observations	135004	52549	46359	25715	49294	10873

Table 2: Implicit prices of brands and PQL

	Yoghurt	Egg	Milk	Camembert	Cooked Ham	Cured Ham
Implicit price of the referenced good lowest price without PQL	1,17€/kg	0,12€/egg	0,48€/litre	3,76€/kg	6,95€/kg	14,80€/kg
	Implicit price of certain attributes					
NB	0,65	0,05	0,03	2,20	5,77	7,70
SB	0,43	0,04	0,05	0,71	2,26	7,14
Price ratio NB/SB	1,5	1,25	0,6	2,10	2,55	1,08
PQL	0,47	0,06	0,44	1,68	2,15	2,42
PQL*NB	-0,16	0	-0,04	-0,08	-0,80	3,41
PQL*NB in % of PQL price	-34	0	-9,1	-4,8	-37,2	141

*All coefficients are significantly different from 0.

Figure 1: illustration for cooked ham: NB, SB, "Red label", interaction "Red label"*NB (price in € per kilogramme)

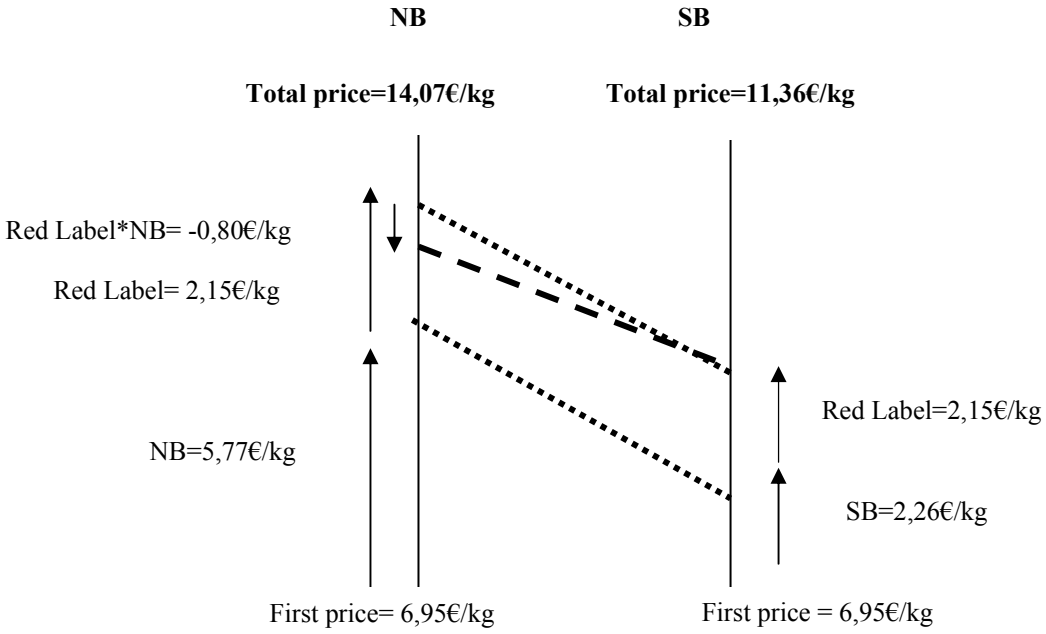

Table 3: Main national brands (MNB) and store brands (SB)

	Yoghurt	Egg	Milk	Camembert	Cooked Ham	Dried Ham
Implicit price of the referenced good First price without PQL	1,17€/kg	0,12€/egg	0,48€/litre	3,76€/kg	6,95€/kg	14,80€/kg
	Implicit	price	of	certain	attributes	
MNB	0,69	0,06	0,07	2,2	5,81	14,93
SB	0,41	0,04	0,05	0,71	2,26	6,49
Price ratio MNB/SB	1,7	1,5	1,4	3,1	2,6	2,3
PQL	0,47	0,06	0,37	1,68	2,16	3,10
PQL*MNB	-0,41	0	-0,04	-0,13	-0,83	-1,62
PQL*MNB in % of PQL price	-87,2	0	-11,38	-7,8	-38,4	-52,3