

**CATEGORIZATION OF FOOD PRODUCTS IN CONSUMER PERCEPTION
BETWEEN PRIVATE AND MANUFACTURED BRANDS: SPANISH STUDY**

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1.INTRODUCTION

The brand first appeared in the large-scale production of the Industrial Revolution as the manufacturers' desire to bring an identity to the consumers (originality, quality guarantee, after-sales service, etc.). Almost immediately these concepts of technical quality were used in commercial and publicity fields. All these events have led to a complex relationship between the brand and the consumer, and to specific economic theories (KAPFERER and TOENING, 1989).

The brand of distribution is a new concept within the classical concept of the brand (COLOMER, 1995). Until its appearance, the brand was related to the productive company. Its origin lies in Great Britain in 1869 where Sainsbury, and not long afterwards, Marks & Spencer, brought out their brand St Michael. In 1925 Migros was founded in Switzerland. However, the real revolution took place in France in 1976, when Carrefour produced "free" products announced as "just as good but cheaper".

There are many existing classifications of food products. In some, within the distribution sector (BEHARELL and DENISON, 1991), we can easily find inside the same category jams, cakes, milk, meat, dehydrated soup and articles of perfumery. From other more recent proposals like, for example, that of IFLS (French Institute of Free Service), or those of AECOC (Spanish Association of Commercial Codification) (VILLALONGA, 1998), we are presented with the mistake of mixing technological concepts of the description of products and incorporating concepts of interpretation that are banal to the consumer. With these classifications it is difficult to see further than the statistical results of the determined products.

Confronted with this situation, we will try to study in more depth the issues of the manufacturers' brands (MF) and those of the brands of distribution (MD) of food products, considering the situation from the point of view of the consumer in the relationship established between the MF and the MD according to their idea of complexity and status in the preparation of the foodstuff. This idea of complexity will come as much from objective factors as from subjective ones.

2. METHODOLOGY

2.1 Study of the opinions of the consumer

We have used both investigative market techniques that are qualitative (focus groups) and quantitative (surveys, product tests). The experiment in obtaining the details was designed by a team of five experts, including a psychologist.

The results of the focus groups represent an earlier, neutral information and have been useful in bringing us closer to the behaviour of the consumer in regards to the brand, hence enabling us to understand better the opinions of the consumer in order to design the questionnaires. The focus groups were focussed around two different cultural realities: the experts' visions and those of the consumers, with the intention of encouraging different points of view and the equal participation of everyone, to avoid the monopolization of the experts in the discussion (GUERRERO and COLOMER et al, 1997; CHAMBERS and SMITH, 1991).

Based on the main concepts obtained in the qualitative study, a questionnaire of five questions was elaborated, making reference to the knowledge of the products of the distributing brand and the brand of the manufacturer (spontaneously renown), the supermarket patronized or not, and the products with a distribution brand bought or not bought. For the design of the questionnaire we used questions that were open, closed or scaled.

The population chosen for the study was the Catalan consumer, given that Catalonia (Spain) is a European region with its own identity but one that is at the crossroads of the movements between the north and south of Europe, and therefore open to many influences. Its gross national product stands at 97 (1993-95) if we take the European mean as 100 (EUROSTAT, 1998).

These questionnaires conceived from the results of the analyses of the group meetings were addressed to a population of 610 people, representing 1/10.000 of the Catalan population. The percentage of reliability is 95.5% with an error of +/- 4%, a most acceptable level of reliability for these types of studies (GARCIA FERNANDO et al, 1992).

The parameters of the population concerned, being those that could influence the attitudes of the consumers and those statistically available, were: sex, distribution by age, residency (urban or rural) and education/training. In terms of residency, towns with less than 10,000 inhabitants were considered rural.

In terms of education, we have considered three levels that could imply certain differences in a critical sense in the moment of a purchase and of the selection of a brand (in the first group we include those with studies at primary level, in the second, those with the school-leaving examination and professional training, and in the third group those with a university education).

The questionnaire was carried out in the period 1996-98. The statistical study of the results obtained in the questionnaires was achieved thanks to the SAS program (1987), (COLOMER, 1999).

The internal consistency of the different components of the model was analyzed using Cronbach's Alpha Coefficient (CRONBACH, 1951), and the variance analysis was carried out using the variables sex, residency, age and level of education, as well as the double interactions between them all.

2.2 Classification proposal

The authors designed a classification of foodstuffs based on the criteria of cultural perception of the participation of the product to be classified, in the preparation of the foodstuff ready to be consumed.

This categorization must take into account various factors: safety as perceived by the consumer (risks, complexity, confidence), sensory value, social value (public image, anthropological food culture).

In this way, the classification of the food products designed is based on a cultural classification which does not rely purely on technological criteria, nor descriptive criteria, but on the consumer's perceptions (variables in space and time). We are talking about agroalimentary products that are in the lines of distribution but where, in the final perception of them as foodstuffs, the basis is still on the preparation and on the very act of eating, the moment when we really judge a foodstuff. We have to take into account the fact that the ingredients for the food products were agrarian in the first half of the 20th century, and that the final product was processed and elaborated in the kitchen, where the culinary composition in taste, color and texture was created. The industry of the second transformation begins substituting totally or partially these culinary elaborations (TORRADO et al, 1997), (CONTRERAS, 1993).

Hence, using this cultural criteria of the consumer, we propose the classification of the foodstuffs, in the same way as they are presented in the distribution, in five ample categories of perception of technological complexity referring to the growing substitution present in culinary elaboration. Using this criteria we have defined the following conceptual groups:

Category 1

Base food products (agrarian, foliage or fishing) that the consumer sees as not transformed, or where the technology of transformation is unconsciously accepted.

For example: rice, sugar, fruit and vegetables, fish, meat, oil etc.

Key concept of this group: Base food products.

Category 2

Base food products with a visually perceptible technology giving them the appearance of transformed products.

For example: preserves, frozen goods, cheeses, cold meats, beer, etc.

Key concept of this group: Base food products + technology.

Category 3

Elaborated food products, able to be readily consumed as they are or with a simple preparation. The consumer not only values the safety of the product, but also the culinary recipe and the confidence given by the person elaborating the product (functioning as chef).

For example: precooked dishes, dairy product puddings, cocoa powder, soft drinks, sauces, etc.

Key concept of this group: Base food product + technology + culinary value.

Category 4

Products to which have been added a functional component for the health of the consumer.

For example: yoghurt with bifidus, products enriched with fibre, etc.

Key concept of this group: Base food product + technology + culinary value + functional value.

Category 5

Food products with a social component. It is also necessary to demonstrate prestige through the product.

For example: wine of distinction, champagne, liquors or liqueurs, caviar, cured ham, etc.

Key concept of this group: social value.

It should be pointed out that these examples are valid for the geographic area of Catalonia, within the concept of cultural alimentary macrounity. In the agroalimentary world, at this time, we can speak of the concept of globalization in itself, above all referring to the prime materials, but in transformed products, the food culture conditions the overall result of the population being studied.

3.RESULTS

TABLE 1
Spontaneous knowledge of products through the brands of distribution (MD) and of the manufacturer (MF)

PRODUCT	REFERENCE MD	REFERENCE MF
Cocoa powder		76
Broths		17
Champagne		8
Donuts		8
Cold meats		63
Dairy puddings		26
Liquers		8
Honey		6
Cooked dishes		2
Purée		3
Sauces		3
Vegetables(*)		6
Soft drinks	6	152
Cereals (breakfast)	3	46
Mayonnaise	4	40
Fish(*)	2	16
Meat(*)	8	31

Mineral water	9	30
Jam	8	24
Dehydrated soup	8	22
Beer	14	34
Wine	15	35
Coffee	58	134
Canned (general)	62	131
Cheese	35	70
Fruit(*)	5	10
Yoghurt	110	202
Icecream	12	20
Chocolate	35	57
Biscuits	55	61
Rice	52	54
Margarine	11	11
Oil (general)	160	108
Sandwich bread	58	52
Soup pasta	142	108
Frozen goods	38	29
Butter	29	22
Fruit juice	58	43
Paté	15	11
Milk	221	161
Olives	44	25
Muffins	11	5
Sugar	22	10
Dried vegetables	43	17
Tomato sauce	72	28
Fried chips	53	17
Asparagus (preserved)	18	
Flour	31	
Cakes(*)	3	
Tuna (canned)	35	
Vinegar	9	
Frankfurt sausages	3	
Nuts/Dried fruit	36	
Ham	23	
Pizza	12	

(*) In these cases MF refers to fresh market products.

For the interpretation of these details we developed the concept **Index of Confidence in the Brand (I_{CM})**, defined as:

$$I_{CMF} = \frac{(a-b)}{a} \quad \text{Applicable when the MF is more widely known than the MD.}$$

$$I_{CMD} = \frac{(b-a)}{b} \quad \text{Applicable in the opposite case.}$$

Where: a: number of cases favouring the manufacturer's brand (MF)
b: number of cases favouring the distributor's brand (MD)

In this way we obtained a relative scale of confidence in the brand of the manufacturer or distributor of 1_F to 1_D , with an inflexion point of 0.

The values obtained with this criteria are referred to in Table II, ordered from 1_F to 1_D , that is to say, from the biggest to the smallest influence of the image of the MF and viceversa for the MD.

Also included is the frequency of each specific response in relation to all the responses. Within the interval of 1_F to 0.5_F , the spontaneous knowledge of the top brand predominates, while, for those products situated within the interval 0.5_D to 1_D , this knowledge predominates for the products of the MD. The products situated in the interval from 0.5_F to 0.5_D correspond to those products with a similar relative weight in reference to the MFs and to the MDs.

TABLE II
INDEX OF CONFIDENCE IN THE BRAND (I_{CM}) AND FREQUENCY
(According to the results of a questionnaire 1/10.000 in Catalonia)

Product	I_{CM}	Frequency of the responses % (f)
Cocoa powder (breakfast)	1_F	3.71
Broths	1_F	0.83
Champagne(*)	1_F	0.68
Donuts	1_F	0.39
Cold meats	1_F	3.08
Dairy puddings	1_F	1.27
Liquers	1_F	0.39
Honey	1_F	0.29
Cooked dishes	1_F	0.10
Purée	1_F	0.15
Sauces	1_F	0.15
Vegetables(*)	1_F	0.30
Soft drinks	0.960_F	7.42
Cereals (breakfast)	0.934_F	2.25
Mayonnaise	0.900_F	1.95

Fish(*)	0.875 _F	0.78
Meat(*)	0.742 _F	1.51
Mineral water	0.700 _F	1.46
Jam	0.666 _F	1.17
Soup	0.636 _F	1.07
Beer	0.588 _F	1.66
Wine	0.571 _F	1.71
Coffee	0.567 _F	6.54
Preserves	0.526 _F	6.40
Cheeses	0.500 _F	3.42
Fruit(*)	0.500 _F	
Yoghurt	0.455 _F	
Icecream	0.400 _F	
Chocolate	0.386 _F	
Biscuits	0.098 _F	
Rice	0.037 _F	
Margarine	0	
Sandwich bread	0.103 _D	
Frozen goods	0.237 _D	
Soup pasta	0.239 _D	
Butter	0.241 _D	
Fruit juices	0.258 _D	
Patés	0.266 _D	
Milk	0.271 _D	
Oil	0.325 _D	
Olives	0.431 _D	
Muffins	0.545 _D	0.67
Sugar	0.545 _D	1.34
Dried vegetables	0.604 _D	2.62
Tomato sauce	0.611 _D	4.39
Fried chips	0.679 _D	3.23
Asparagus (preserved)	1 _D	1.10
Flour	1 _D	1.89
Tuna (canned)	1 _D	2.14
Vinegar	1 _D	0.55
Frankfurt sausages	1 _D	0.18
Nuts/Dried fruit	1 _D	2.20
Ham	1 _D	1.40
Pizza	1 _D	0.73

(*) Refers to fresh market products.

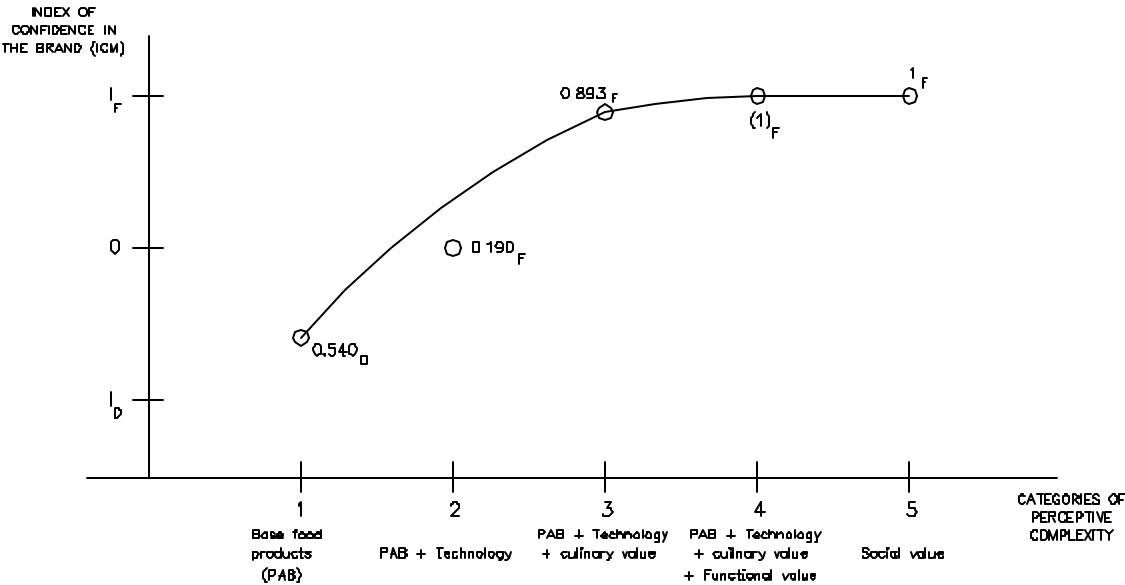
If the products of Table II are grouped into the categories proposed by the cultural perception, and the mean and balanced value I_{CM} is calculated with the quotation frequency of each product, we obtain the groupings and the values recorded in Table III. If the values of I_{CM} are expressed graphically in relation to the conceptual progress of categories, we obtain the curve of Graph 1.

TABLE III. Grouping of the products (Table I) in the categories defined and value for each category in the Index of Confidence in the Balanced Brand (ICM).

CATEGORIES	1	2	3	4	5
PRODUCTS	Honey Mineral Water Rice Pasta Butter Milk Oil Wine Olives Fruit/Vegetables Flour Vinegar Nuts/Dried Fruit	Cold Meats Purée Mayonnaise Jam Beer Coffee Preserves Cheese Yoghurt Chocolate Biscuits Margarine Sandwich Bread Frozen Goods Patés Fruit Juices Muffins Tomato Sauce Fried Chips Asparagus (preserved) Tuna (canned) Frankfurt Sausages Ham Pizza	Cocoa Powder Dehydrated Broths Donuts Dairy Puddings Precooked Dishes Sauces Drinks Breakfast Cereals Dehydrated Soups Ice Creams		Champagne Liquers Aquavites Wine of Distinction
ICM	0.540 _D	0.190 _F	0.893 _F	(1F)*	1 _F

* This value is added because, in the period when the questionnaires were carried out, all the products in Category 4 in the Catalan market corresponded to manufacturers' products (MF).

Graph 1 :
Relationship between the confidence in the brand and the perception of the product according to the parameters described in the text.



F : Preference for the manufacturer's brand

D : Preference for the distributor's brand

4. DISCUSSION AND CONCLUSIONS

The concepts of Index of Confidence and of categorization in relation to cultural perception and use on the consumer's behalf are contributions of general application.

The Index of Confidence in the Brand (I_{CM}) has been introduced. This indicates the relative weight between the MF and the MD in the perception of confidence (and intention to buy) in the consumers, for each one of the categories. The knowledge of I_{CM} is the first instrument necessary for a future planning of a brand's strategy.

The proposed classification of the foodstuffs in five categories is based on the cultural perception that the consumer has of the foodstuffs, and related to his or her participation in the final preparation.

The correlative curve indicates that, on one hand, the MD are accepted by the consumer in the first categories, while, if valued in the moment of purchase, the culinary complexity (substitution of preparation, taste, safety), the nutritional functional value and the social value are, in this moment, the solid grounds of the MF.

The results obtained with a particular value for Catalonia show which food products (MF or MD) can be classified in the five categories, reflecting the perceptions that the consumer attributes to their useful value in the kitchen, their functional health value or their social value.

In all cases the products of category 2 (Base food products + perceived technology) are penalized in this classification. This can be interpreted as an expression of refusal of the alimentary technology applied in the preservation of a close product to one considered as a base product, but where the consumer perceives a transformation that takes away the authenticity of the products in category 1 considered natural.

Situating a product in a determined position on the curve, being MF, will mean a reinforcement of its competitiveness in the areas of innovation and perceived safety. Any strategy that does not reinforce these aspects will only bring about a price rivalry with the MD that, in the end, will cause it to lose its peculiarity. On the other hand, if the MD want to rise up the curve, they must add to their vision of a simple, low cost product, the concepts of safety, technological complexity, innovation and social value. All this is quite a challenge in wide debate (QUELCH and HARDING, 1996), (JUNNG, 1997), (DAVIS, 1997), (ENRNREICH, 1997), and something that, if the MD incorporated all of these values, could lead once again to unity as the concept of the brand.

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