ANALYSIS OF CONSUMER PERCEPTIONS ON QUALITY AND FOOD SAFETY IN THE SPANISH BEEF MARKET: A FUTURE APPLICATION IN NEW PRODUCT DEVELOPMENT

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Abstract

During the last years, the research of food quality perception and food safety have been issue of greater attention due to the intense existing debate on aspects related to ethical considerations relative to the new agricultural production techniques, animal welfare concerns, food scares and crises and their impact in consumer's confidence, that have brought numerous questions about quality and food safety. With the Total Food Quality Model as a point of departure, this study proposes an analysis of quality perception and food safety related to beef in Spain. The objective of this paper is to focus on the focus group technique and the qualitative research, using NVivo software for the handling, analysing and interpretation of qualitative data. Results indicate the more significant factors for habits of purchase, place of shopping, quality and food safety perception, role and confidence on brands and willingness to pay for certified beef. Some of the outcomes are supported by the quantitative research results, which is currently in progress.

Key words: focus groups, NVivo software, quality perception, food choice and food safety. JEL classification: Q13

1. Introduction

An important marketing strategy consists on the achievement of quality, although the question is, how to obtain it. As Quality we can understand 'all those products and services that satisfy the explicit and implicit needs of consumers' (Garcia et al., 2004). Whereas in the decade of 60 and 70, the basis of the quality policies was the control of the product before arriving at the consumer, the aim of the current policies consists in translating consumer's food quality perceptions in objective parameters, product attributes, in order to help the development of new food products (Briz, 2003). The study of consumer's food quality perception is one of the most complex areas in the research into consumer's behaviour.

Nowadays, there are numerous researches carried out to determine consumers' preferences related to quality and food safety (for example, in cheeses, the studies of Bernabéu et al., 2004; Murphy et al., 2004; and in olive oil, Garcia et al., 2002; Mahlau et al.; 2002). The meat sector, fundamentally the fresh meat sector has been one of the most analysed food sectors; where diverse works have been carried out in order to research into the characteristics of different groups of consumers, their perception of food quality and those aspects that worry them more (eg. employment of hormones, antibiotic, cholesterol) (Bello Acebrón & Calvo Dopico, 2000; Bredahl et al., 1998; Briz & de Felipe, 2000; Brunso, 2000; Gil et al., 2002).

The main object of this paper is the study of Spanish consumer perceptions on quality and food safety of beef, nowadays that traceability and food safety are subjects very present at the point of purchase. Consumer evaluates and pays for this perceived quality, whereas the food industry is more interested in a quality which is oriented to the product, process and quality controls (Brunso et al., 2002). Improvements in the objective product's quality, but that do not have effects in the consumer's perceived quality, will not have any commercial effect and neither a positive effect. For that reason, it is of great importance, to take knowledge of this perceived quality and of the amount of consumers, who will pay for it.

As result of the recent food crises, consumer feels more concerned with food quality and safety, demanding more transparency in the food-chain and more information on the diverse qualitative characteristics of foods (ej. nutritious value, origin, way of production, etc.) (Ventura-Lucas, 2004). Different studies show the loss of confidence due to these crises, related specially to those products which were affected (Henson & Traill, 2000; Angulo & Gil, 2004; Ventura-Lucas, 2004). In some UE countries, like Germany, Ireland, United Kingdom and Sweden, it was observed after the last food crises a change in consumer attitude related to beef consumption (Henson & Northen, 2000). In Spain, 49% of the consumers affirmed to have changed their habits of foods' purchase (Angulo & Gil, 2004). Due to these crises, consumer confidence was not the only affected but also it caused important loses in food industry. According to estimations of the Spanish Ministry of Agriculture (MAPA), beef consumption was reduced a 40% in the first trimester of 2001, (http://www.consumaseguridad.com, November 23[rd], 2001). One of the leader international food companies in the meat sector, Campofrío, announced a 10-15% drop in beef sales after the first cases of BSE in France in 1991. Likewise, several important food retail chains, Carrefour, Enaco or Superdiplo, announced also a sharp fallen in beef sales (http://www.labolsa.com/canales/220 /, January 23[th], 2001).

Nowadays, food safety is an issue that regards credence and trust on food products, which is becoming more and more important for consumer (Brunso et al., 2002). The present demand of consumers for receiving information on food quality and safety, determines in great measure the characteristics of the food chains and the strategies to develop by the industry (Garcia et al., 2004). Furthermore, a key-aspect to be competitive in the actual food market, consists in orienting it toward the consumer. The efficiency of the food chain depends on its capacity to offer a trustworthy and reliable information of food in order to be able to give an answer to this continuous consumer's demand for receiving more information (Kola et al., 2003). Studies related to the consumer's judgment process of food safety at the point of purchase, have showed the necessity of an adequate information provision (ie. use of quality labels, brands, etc.) as a way to assess consumer food safety (Henson & Northen, 2000; Angulo & Gil, 2004; Mahon & Cowan, 2004). The search of products with a better quality has become one of the main strategic priorities of the food industries (Gellynck et al., 2003); where the information plays a fundamental role, like tool that guarantees a certain quality and food safety.

The present research is part of a wider study, which includes on the one hand, the perspective of consumer -the study of subjective quality measured through the perceptions and the preferences of consumer- and on the other hand, the perspective of the food industry. This integration of consumer and food industry in the same approach is one of the main innovating characteristics of this study, as long as it supposes an advance on the present investigating lines, which have aimed to analyse these quality aspects only from a one-dimensional approach, ie from the point of view of the food industry or of the consumer. However, empirical evidences indicate the necessity of an integral approach to study quality perception and food safety. In Spain the food industry sector is one of the most actives relating development of new products. Nevertheless, statistical data show that, between 50%-80% of the new products fail once introduced in the market. Genetically modified food, employment of additives or irradiation of products are some examples of technological innovations and new food products, which have not had the expected success. This fact demonstrates that supply and demand do not go so tied, although the food market is considered by the governments, distribution and food industries, as one of the most oriented markets toward consumer (Dagevos & Hansman, 2004).

This paper is structured in four parts. After this introduction, Section two explores the framework where the present study is involved. This exposes a study of present literature. Section three exposes the methodology and results of the qualitative research (Focus Groups technique), as a qualitative method for the determination of consumer attitude and behaviour aspects, perceived intrinsic and extrinsic quality cues and perceived safety at the point of purchase. The quantitative research, that is currently in progress, allows us to support some of the outcomes extracted from the discussion sessions. Finally, some conclusions and comments are presented.

2. Framework of the present research

The food choice process is a complex preferences function of sensorial characteristics, non-sensorial factors, including expectations and attitudes, health aspects, price, ethical considerations and inner state. Diverse methodologies have been developed to analyse consumer behaviour related to food choice. Methodologically, models can be classified like multi-dimensional or hierarchical approaches. Most of them assume quality as a multidimensional concept, ie. quality is perceived by combining a number of quality dimensions or characteristics of the product. There have been a few attempts to integrate the different philosophies into a unified framework for analysing the food quality perception process, one of the most notable cases being the model proposed by Grunert et al. (1996), the *Total Food Quality Model* (TFQM). This approach integrates a number of models such as, *means-end chain theory* (Gutman, 1982)[1], *multi-attribute theory (*Fishbein & Ajzen, 1975)[1], *economics information approach* (Darby & Karni, 1973)[1], and the philosophy related to the explanation of purchase intention and consumer satisfaction as a discrepancy between expected and experienced quality (Oliver, 1980, 1993)[1]. This model integrates the multi-attribute and hierarchical approaches to quality perceptions, as well as the explanation of intention to purchase and the explanation of consumer satisfaction (Brunso et al., 2002). This approach is considered as the most adequate framework for the analysis of perceived food quality, its influence at the point of purchase and the design of products by the food industry in order to satisfy the demands and expectations of the consumer (Grunert, 2002). Therefore, it can serve as an integrative framework for analysing issues related to consumer food choice and quality perception, their influence on the intention to buy and for developing new food products by the food industry in order to satisfy the demands and expectations of consumers.

The Total Food Quality Model distinguishes between 'before' and 'after' purchase evaluations. As it was indicated in Section 1, the aim of present research is to take an understanding of purchase motives or values and food characteristics, which contribute to satisfy them and to make purchase decision. Therefore it is in the 'before purchase' part and quality experience after the purchase, where the present report is framed. Quality expectations are formed based on the quality cues available. Cues are pieces of information used to form expected quality (Steenkamp, 1996). It is common to distinguish between intrinsic and extrinsic quality cues. The intrinsic quality cues are characteristics which can be measured objectively, while extrinsic quality cues represent all other characteristics such as labels, price, etc. Recent studies address that consumer rely more on extrinsic cues when it is difficult to infer quality (Bredahl, 2003; Grunert et al., 2004; Scholderer et al., 2004). While cues are perceived, quality is desirable. Perceived cues are influenced by situation of purchase, ie. amount of information offered to consumer, time spent to purchase, etc.

In addition, there are more abstract food product characteristics, which can not be measured before consumption and that consumer also employs to determine quality. Based on studies on beef, three

[1] Grunert (1997 ; 2002); Bredahl et al. (1998); Bello Acebrón & Calvo Dopico (2002); Brunso et al. (2002); Grunert et al. (2004)

main quality aspects were inferred: tenderness, taste and juiciness (Grunert, 1997). These aspects are related to hedonic quality dimension that can only be established after consumption. Moreover, there are other aspects regarded to trust and credence, which can seldom be ascertained after consumption. Such aspects are healthiness, nutritional value and freshness, which are motivated by expectations regarding safety and risk-related issues. These characteristics are not easy to evaluate or experience for consumer, which indicates a need for a special information system. Confidence attributes offers a challenge to inform on food product not only to induce purchase, but also to reinforce its choice after consumption. Quality perception almost refers to a communication issue, when food products that based on credence characteristics are commercialised. Confidence and trust on carried information depend almost on the information source.

The study on beef developed by Grunert (1997) was the first intend to make a quantitative estimation of the Total Food Quality Model. It was carried out in some European countries, included Spain and describes which perceived intrinsic and extrinsic quality cues influence purchase intention. Among obtained results, it was addressed that all quality cues, which were used to explain purchase intention, are interrelated, ie. two quality cues can be used to infer a quality aspect. Perceived fat and the place of purchase were pointed as the main quality cues in expected quality formation. Results of later studies pointed colour and place of purchase as the most perceived quality cues (Briz & de Felipe, 2000) and price (Bello Acebrón & Calvo Dopico, 2000) which had a positive influence on expected quality. Price was perceived as a relevant cue when consumers did not dispose from an adequately information on intrinsic quality cues. In addition, brands, labels and package were employed to infer health quality.

Based on results of studies carried out in Spain, table 1 shows the main quality cues most perceived by Spanish consumers:

Table 1: List of cues addressed in last studies on beef in Spain.

	Grunert, 1997	**Bello Acebron & Calvo Dopico, 2000[1]**	**Briz & de Felipe, 2000**
Intrinsic Cues	Cut Colour Marbling Fat content Fat rim	Texture Colour Visible fat	Colour Marbling
Extrinsic Cues	Price Origin Information on animal production	Price Promotion Store image Presentation Origin	Place of purchase Origin Brand / Label Price

[1]We can not refer to these results as representative for Spain, because this survey was carried out in a region of Spain.

Fresh meat differs from other food products on its low differentiation level. Visual appearance is the only possible way to identify an improvement in quality (Grunert et al., 2004). Consumer's use of quality cues to infer expected quality at the purchase stage can be quite misleading, fact that could be a handicap to perceive improvements developed by producers. Therefore, the answer of producers is actually oriented to find new ways to differentiate their products regarding consumers' demand. Actually, brand names and labelling are possible ways of providing consumers with additional information about food products (Grunert, 2003; Grunert et al, 2004). However, brands and labels must be perceived to be credible (Brunso et al., 2002). According to Verbeke & Vackier (2004), future researches must be oriented to analyse consumer response to made actions in order to improve quality, traceability and brand use.

In addition, consumer is very worried about issues related to food quality and safety due to the last food crisis. It is thus demanded a more transparency in food chain as well as a major provision of information on food characteristics, such as nutritional value, origin, etc. (Ventura-Lucas, 2004). The present research seeks to understand actual dimensions of quality, relevant quality cues, purchase motives, perceived food safety and role of brands as instrument to infer quality.

3. Methodology

In the present study, we use Focus Groups to identify concepts regarding consumption, purchasing behaviour, quality cues and safety perception on beef, in order to determine aspects, which would enhance their confidence on beef safety (e.g. brands and quality labels) as well as their willingness to pay.

The focus groups approach has been widely used as a research tool in product development, social science, marketing, etc. (Bello Acebrón & Calvo Dopico, 2000; Dransfield et al., 2004; Garcia et al., 2002; Grunert et al., 2004; Mahlau et al., 2002; Murphy et al., 2004). The aim is usually to obtain information and opinions about a product or situation organising interviews with a group of participants. The main advantage of Focus Groups is that they allow much more freedom of expression by the participants than other forms of enquiry. Discussions are often based on open-ended questions, which give a great deal of qualitative data but that add also complexity to the information because concepts may be expressed in different forms. The methodology of Focus Groups was adopted for this study to accomplish the qualitative research, in order to understand the actual motives and habits of beef purchase by the Spanish consumers and to identify the used attributes to determine quality and food safety on beef before purchase.

Focus Groups are defined as 'a research method, which consists on sessions focused in a theme in order to collect qualitative data' (Mahlau et al., 2002; p. 148-149). Within the Total Food Quality Model framework, the use of the Focus Groups is commonly recommended for the qualitative research (Brunso et al., 2002; Bredahl, 2003; Grunert, et al., 2004) mainly in fresh meat approaches, because of being a food product whose quality is normally complicated to perceive by consumer.

3.1 Design of Focus groups

Five Focus Groups were organised between May and June, 2004 and conducted through five cities: Madrid, Bilbao, Zaragoza, Cáceres and Murcia. In order to obtain the most representative analysis of all consumer profiles and to assure a certain diversity of opinions, focus groups were designed with the objective that the participants' profiles were as much representative as possible of all age groups, socioeconomic background and both sexes. The number of participants varied between 8 and 12 participants. Table 2 shows the socio-demographic variables of each focus group and frequency of beef consumption.

Table 2: Profiles of Focus Groups

	FG. 1	*FG. 2*	*FG. 3*	*FG. 4*	*FG. 5*
Place	Madrid	Bilbao	Zaragoza	Cáceres	Murcia
Date	12/05/2004	13/05/2004	3/06/2004	9/06/2004	29/06/2004
N. participants	9	12	9	10	9
Age	G.p.[1] under 30	G.p.[1] under 30	G.p.[1] above 30	G.p. 30-55	G.p.30-45
Gender	Men and women	Men and women	G.p. women	G.p. women	Men and women
Number of adults living at home	2-4	4-3	2-3	2-3	2-4
Presence of children	G.p no children	No children	G.p. with	Varied	G.p. with
Frequency of beef consumption (times/week)	1-2	2-4	1-4	2	1-3
Profession	G.p.[1] students	G.p.[1] students	Housewives Work out	Work out	Work out

[1] G.p. 'Greater-part'

Participants of these sessions must be responsible for buying beef in each home or at least they must help with the purchase. Nowadays the presence of women who are in charge of the purchase is still higher. In Focus Groups 1 and 2 it is outstanding the high number of young people under 30, who help with purchase at home, despite they are not yet responsible for. Nevertheless, their opinions are also important for the research, since they constitute a key group of future consumers.

Each focus group followed a carefully designed discussion guide and lasted around 2 hours. Before it, each participant were asked to fill a questionnaire in order to refresh ideas and to keep in mind issues regarding beef purchasing behaviour, product attributes, etc. The main questions were as follows:

1. Frequency and motives of beef purchase.
2. Consumption of other meats and fish.
3. Place of purchase
4. Preferences for different types of beef cuts
5. Perception of beef quality: intrinsic and extrinsic cues. Use of pictures
6. Beef safety: concept, safety aspects which more concern them.
7. Role of brands and willingness to pay
8. Ranking of pictures regarding their preferences and comments

By the way, it was considered interesting to show some pictures of pieces of beef in order to arouse opened discussions to different opinions (Morgan, 1997) for example, with questions related to perception of beef quality. As summary, at the end of each session, participants were asked to classify some pictures according to their preferences and confidence on them. The whole sessions were on tape recorders and the parts, in which pictures were showed, also on video recorder. The sessions were conducted by a moderator who asked the questions and a co-moderator who took written notes and also took care of the tape and video-recorder. The moderator had previous experience in conducting such sessions.

3.2 Focus groups' analysis

The tape recordings were transcribed word for word. For the data analysis it was chosen the program NUDIST, version NVIVO 2.0, due to its diverse options for the handling, analysis and interpretation of the qualitative data. NVivo has tools for recording and linking ideas in many ways and for searching and exploring the patterns of data and ideas. For us, it is interesting, that this software helps to manage and synthesize ideas, constructing and testing answers to research questions.

NVivo software allows to create a project to hold the information, data, observations, ideas and the connections between them, relevant to the research task. To work with NVivo must be followed the following processes, which are independent but integrated:

1. Creation of Documents and Nodes. Both are used to store information, define categories and shape ideas. As documents are used the transcriptions of Focus Groups as well as external data sources: ie. pictures used during the sessions, which could be found as interesting for the research. Nodes are the containers of our thinking about the data, ie. concepts, abstract ideas which can be kept without organization or organized hierarchically. Documents and Nodes can be given the values of attributes and be managed in sets. Working with NVivo we can also link documents or nodes to other documents or nodes.
2. Code documents at nodes in order to bring together material on the topic or concept. NVivo allows to combine visual coding with coding at nodes, or to use visual coding, returning to traditional methods, instead of node coding.
3. Searching. In order to search data and ideas, this software provides a wide range of flexible options. This process of examining project data allows researcher to ask questions about coding, attributes and what is in the text together but also an accurate search. This tool has allowed us to find relationships among participants related to their age, sex, number of children and habits of consumption, perception of quality and beef safety, intention to pay for an increase in quality, confidence in brands, etc.
4. Create models. NVivo has tools to make graphical models of the ideas or project processes aimed to perceive relationships between parts of the projects, discoveries in the data, ideas, etc.

3.3 Results of Focus Groups

Habits of purchase:
In general, participants give more importance to the purchase of beef than of the other types of meats, perceiving beef as a meat with a superior quality. Pork and chicken are the other most consumed meats in order to change in their diets and due to economic reasons. In the case of fish, its superior consumption is due to healthy reasons, mainly among participants with cholesterol problems. Health aspects, were also indicated like motive for beef consumption. By young people or those, who work outside home, convenience is pointed as another purchase reason. Brunso et al. (2002) pointed convenience, like purchase aim, which is more related to socio-economics characteristics, such as rent level, participation of woman in the labour market and home size. In general, after these sessions, it

has been observed that the presence of children influences enough in the purchase of beef, being those participants without children, who more look for convenience at the point of purchase.

Briz & de Felipe (2000) on their study on the habits of consumption of meat in Spain, pointed butcher as the most preferred place of purchase of beef, chicken and pork, being their market quota specially elevated in case of beef (52%). It is similar in other European countries, such as Belgium, where butcher (54,2%) is the most preferred to buy fresh meat, followed by the supermarket (32,3%) (Verbeke & Vackier, 2004). On our study, the results obtained at a qualitative level, are similar to those obtained on pointed studies: the purchase from butcher (independently if in the local market or in supermarket) surpasses to the purchase from trays. The participants who self-defined as ‘real’ beef consumers prefer to buy from butcher rather than in a supermarket. The first ones agreed loyalty on their butcher, considered also as their own brand. The butcher offers a confidence and trust that it is not perceived by the direct shopping in supermarkets. Mainly, this aspect is more valued by the young people, who feel specially disinformed on the different categories of beef and its ways of preparation. The accomplishment of an informative campaign about different types from commercial cuts and its ways from cooking, could be an incentive for many consumers who do not have such a culinary culture. In addition, it was detected an unfavourable perception of the handling and conservation process for beef in trays as opposed to meat from butcher.

Regarding to the knowledge of different cuts on beef, respondents agreed that, the most appreciated ones were entrecote and sirloin which are related to the consumption in restaurants or celebrations. On a study made in Argentina by Viola (2004) proposed different profiles from consumers related to types of cuts. Due to the different ways from preparation of beef according to its cut’s aptitude, they observed different answers from consumers’ satisfaction. According to this study, those consumers who looked for the nutritional value and convenience in beef, employed the type of cut like purchase attribute.

Quality Perception. Determination of beef attributes:
Based on the results of focus groups, perceived colour, fat content, thickness, presentation, presence of a brand, butcher recommendations, price, origin of the animal, and store image were the factors that participants gave greater importance at the purchase stage. From these quality characteristics, respondents tried to infer some expected quality attributes, such as: tenderness, taste, juiciness and healthiness.

- Colour: Generally, the most appreciated colours were the clear ones (pink and clear red), although depends on the respondent most preferred beef type, ie. calf, heifer, bullock, cow, etc.
- Fat content: The fat share was regarded as an important determinant of the purchasing decision, especially for the participants self-considered as ‘real’ beef consumers. Generally, it is desired a non-abundant fat share and mainly marbling, in order to confer taste. Regarding previous studies (Bredahl, 2003; Grunert et al., 2004) consumer perceived erroneously the share of fat like characteristic to base their quality evaluation.
- Thickness: It was addressed as a quality characteristic when the purchase was not from butcher. Whereas finest steak cuts are more appreciated by those consumers self-considered like ‘less beef consumers'; the self- recognized consumers associate them with certain hardness.
- Presentation: Independently of the point of purchase (butcher or in tray) a bad presentation, piled up meat, and the aspect of the store turns out to be a decisive factor at the moment of purchase.

Two main concerns emerged regarding packaged beef: perception of use of substances in order to provide a better aspect to the steak, ie. use of additives, and a worse sight of the beef inside.

- Recommendations of the Butcher: Participants rather trust an expert (the butcher) than forming quality expectations on their own, mainly to determine quality attributes such as: tenderness, taste and healthiness.
- Presence of a quality certification: Normally, branded beef, especially 'Ternera Gallega' -perhaps because of being the oldest Spanish Protected Geographical Indication, PGI- is perceived as a high quality beef. Brand was regarded as an important determinant factor of the purchase decision by those participants who admitted being habitual consumers of branded beef. Although brands were perceived as a positive factor, it was normally avoided due to its higher price, which was not related to the perceived possible advantages. In some cases, they were themselves arranged to pay, at the most, 20-30% more; but never a 50% more.
  Generally, the loyalty that was shown towards brands was low, with the exception of those consumers of ecological beef, who would rather reduce their consumption than consuming another different beef. Among brand names, the presence of PGIs was perceived more positive than retailer's brands (Calidad Tradición Carrefour, Producción Controlada Auchan, etc.) However, it was perceived a lack of knowledge and awareness related to brands, which regards with a better breeding and feeding, animal welfare and a traceability.
- Price: Although in the questionnaire price was pointed as one important quality factor, it was hardly considered in the dynamic with pictures. We argue that participants were not able to imagine themselves at the purchase stage. Nevertheless, the results of Focus Groups showed that intention to pay could depend on the number of children and on the rent level. However, the quantitative analysis aims only rent level as a characteristic significantly related to price, considered as purchase motive and perceived quality factor at the point of purchase. In addition, price is taken as one of the evaluated attributes in the Conjoint Analysis in order to estimate its relative importance in the purchase situation. This quantitative methodology has been extensively employed in food surveys in recent years (Garcia et al., 2002; Fotopoulos and Krystallis, 2003).
- Country of origin: It turned out to be a decisive factor among brand consumers and young participants, who usually rejected a non-national origin beef.

Bredahl (2003) determined on his study on branded beef, that intrinsic cues are generally stronger determinants of perceived quality than perceived extrinsic cues, because the first ones are more closely related to the product. Nevertheless, the importance of perceived intrinsic and extrinsic cues in the determination of the expected quality depends on consumer familiarity or experience. This importance on previous experience was strongly remarked by some of the participants. This study also suggests that consumer usually trusts more on the extrinsic cues when it is difficult to him to evaluate food quality. The Focus Groups indicated that, although the most perceived factors were intrinsic cues, ie. colour and fat content, consumers considered commonly extrinsic cues.

One of the advantages of using NVivo, as qualitative data analysis tool, is that it facilitates the search of relationships among participants related to their attributes. With regard to some of the derived results, it was observed that the purchase of branded beef could be related to some of the perceived beef characteristics at the point of purchase. In order to indicate this relationship, an ANOVA test was carried out with the quantitative data (Table 3)

Table 3: Perceived cues at the purchase moment

Perceived characteristics at the point of purchase	Purchase of branded beef				
	Mean[1]	With frecquency (34,3%)	Depending on Price (15,8%)	Never (23,6%)	NS/NC (26,3%)
Presence of IGP[*]	**2.44**	3,24	2,41	1,83	1,96
Origin[*]	**2.9**	3,58	3,07	2,41	2,33
Retailer´s brand[*]	**1.72**	2,16	1,56	1,55	1,39
Sinew[**]	**3.92**	4,02	4,26	3,62	3,87
Presence of fat[**]	**3.96**	4,13	4,12	3,77	3,84
Best befote date[*]	**3.34**	3,78	3,72	2,88	2,94
Cut	**3.31**	3,41	3,32	3,36	3,13
Price[*]	**2.91**	2,69	3,63	2,81	2,86
Cooking information[***]	**2.11**	2,28	1,99	2,22	1,84
Butcher's recommendations	**3.68**	3,86	3,72	3,48	3,62
Colour, freshness[*]	**4.29**	4,47	4,33	4,09	4,21

[1](1: Not important; 2: Somewhat important; 3: Indifferent; 4: Important; 5: Very important)
[*]Sig. level 0,01; [**]Sig. level 0,05 [***]Sig. level 0,10

A first view of data reveals that intrinsic cues seem to be more important at the point of purchase than extrinsic cues. That supports some of the results derives from the focus groups. The ANOVA test indicates significant differences on factors: Origin and Presence of an IGP, between usual consumers of beef with a Designation of Origin and non- consumers.

At the qualitative stage and being conscious that no final conclusions can be reached, we have attempted to classify focus groups' participants in order to guide future researches. These profiles are explained in Table 4.

Table 4: Profile of participants regarding brand consumption

Profile of participants related to brand consumption	*Main observed characteristics*
Brand consumers (IGPs, retailer's quality brand)	Mainly under 45 and over 64 years old. Home size: 2-3 members. Upper middle level of rent. At the point of purchase they usually read labels and pay attention to beef origin, type of cut and information on preparation. A certain willingness to pay for high categories of cuts. Their most preferred pictures were those from branded steaks.
With or without brand depending on price	Age group: 45-65. Most of them assured to read usually labels. Low willingness to pay more for certified beef. Low reliance on controls in beef-chain
With or without brand	Age group: 30-45. Only a few of them pay attention on origin. Extended belief: 'Price is not the unique indicator of beef quality'
Without brand	Under 30 and age group: 45-55. Do not pay attention for labels. No willingness to pay for certified beef. Distrust on controls in beef-chain and on authorities.

At the quantitative stage a Cluster Analysis shows five different segments of beef consumers, each with different demands (Table 5)

Table 5: Clusters Profiles

Clusters	Profiles
Cluster 1 (n=114) 22,3%	*Traditional consumer*. Mature and old consumer. This group is the one who most values Butcher recommendations.
Cluster 2 (n=82) 16,0%	*Life Quality search*. Mature and young consumers. According to conjoint analysis results, it is the cluster that derives a higher utility to the Presence of brands.
Cluster 3 (n=144) 28,2%	*Young consumer*. Young and mature consumers. This group obtained the largest positive utility of all cluster from fat absence. 47,9% of participants buy branded beef with frequency or regarding price. The only segment that perceives positively beef from trays.
Cluster 4 (n=109) 21,3%	*Purchase experimented consumer*. Mature and old consumers. Presence of brands and Fat are the attributes that obtain the highest elative importance.
Cluster 5 (n=62) 12,1%	*Price sensitive consumers*. All the age ranges. Price is the most valued attribute at the point of purchase. Purchase of branded beef depends on price.

Food Safety:

The way to perceive food safety and its effects on the purchase final choice, can change drastically during crisis situations (Grunert, 2002). The BSE crisis was an example and therefore many studies were carried out to determine its influence in beef consumption (Angulo & Gil, 2004). One of the aims of Focus Groups was to detect changes in perception of beef safety and if developed actions (ie. appearance of more brands, legislation about labels, etc.) after BSE crisis have been taken into account by the Spanish consumer.

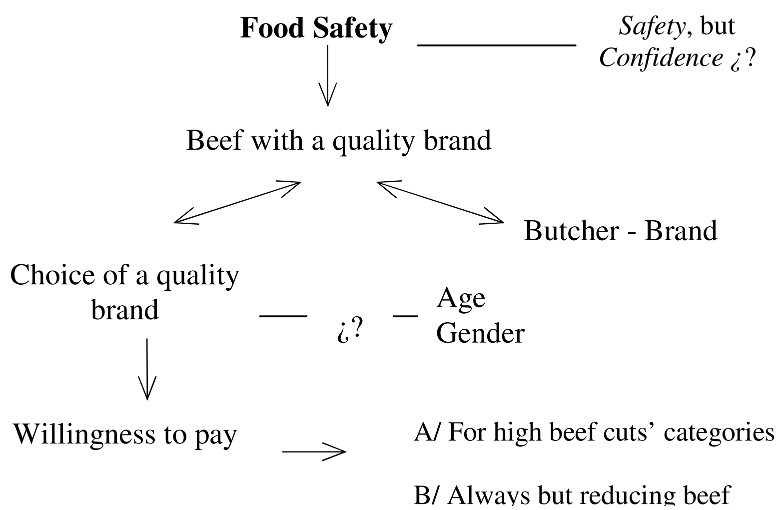
Most of participants admitted being something or nothing influenced by BSE crisis. According to confidence on public authorities, male participants seemed to have more confidence on beef than on other meats, such as chicken or pork. Although participants perceived more controls in beef chain, they do not trust on its healthiness. These results indicate that consumer perceive in a different way safety and confidence aspects. On the one hand, the objective character of food safety and on the other hand, the subjective character of confidence. Participants supported an evidence in demanding a safety level, nevertheless this safety does not mean to have confidence on it. Once this food safety would be perceived, then confidence could be reached. Perhaps, it is due to the distrust on authorities and the lack of information about controls made in beef-chain.

In a study carried out by Eroski Group and the 'Instituto de empresa español' in 2002, they determined that '*the confidence factor is more related at the food choice point, whereas safety factor seems to be related to the convenience of purchasing or not foods'* (http://barometro.fundaciongrupoeroski.es/discapacitados/es/2002/capitulo1/pag1.php).

Most participants were concerned about use of antibiotics, hormones and chemical agents used for the preservation of meat. It was a very shared opinion the association the excess of water in steaks with the use of hormones or antibiotics. A greater deal of information on production ways, an effective legislation (about antibiotic use, hormone use, etc.) could allow consumer to have more knowledge on the measures taken to avoid frauds. In addition to, if it is associated with a brand: PGIs, etc., would be easier to identify that meat as a safe meat.

Main concepts and ideas obtained from Focus Groups related to Food Safety and willingness to pay for branded beef are showed in Fig. 1.

Figure 1: Focus Groups' main ideas regarding food safety



During these Sessions it could not be estimated, how socio-demographic characteristics of consumers have influence on the final purchase decision of branded beef. However, the accomplishment of this qualitative stage has been critical in order to outline the quantitative research.

4. Conclusions

Although the main place of purchase for the Focus groups participants is still butcher, it is becoming more often to buy from trays, especially when the person who takes charge of shopping at home, works out. However, beef in trays is not perceived in the same way as beef cut fresh from the slab. Aspects related to a perceived artificiality, use of additives and last bad experiences along with the short time available for shopping are motives of this lack of trust on self-purchase beef. According to discussion groups results, the actual consumer failed in purchase and culinary knowledge of beef. Therefore an informative campaign on the different type of beef cuts should be carried out in order to reach two objectives: on the one hand, to help consumers, specially young consumer, to create an habit of purchase based on their own perceptions and on the other hand, to incentive another ways for preparing beef different from steaks, which consumer find so monotonous.

Colour and fat content together with price are the more perceived characteristics to infer quality. Results from focus groups show a lack of loyalty on brands. Perhaps it is due to the importance of butcher's recommendations at the moment of purchase. Among brands, there is a more knowledge of brands related to a place of origin, ie. IGPs, etc, than private certified brands, ie. 'Calidad Tradición Carrefour, 'Produccion controlada Auchan', etc. Generally, Spanish consumers do not rely on authorities and producers so much as consumers from other countries. The addressed motive by our participants war the absence of provided information. Although they are conscious of the great deal of controls carried out nowadays, they prefer not relying on them.

In summary, the impression obtained after these Focus Groups, is that Spanish consumer perceives safety on beef, as a minimum requirement that producers must guarantee them, and they do not also conceive paying a higher price for, as an example, a brand. The results of Focus Groups showed that those consumers, who were less affected by recent crises in beef sector, determined more willingness to pay for a branded beef.

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