ABSTRACT. An appellation of origin is the acknowledgement of a Regulatory Council certifying that the product fulfils the technical product specifications—e.g., geographical origin, specific variety or breed; a traditional method of production or elaboration or any special intrinsic characteristic—in order to differentiate the product. In this paper, it is analysed whether the appellation “Ternera Gallega” increases quality and enables product quality to be assured through the food chain. Empirical results have confirmed the fact that an appellation of origin increases perceived quality—the so-called halo effect—and reduces the variability of evaluations of quality. In the case of beef, our conclusion is that, where the existence of brands is almost nil, the appellation of origin can be the basis for the creation of a brand. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2002 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Appellations of origin, brands, beef, consumer behaviour

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INTRODUCTION:
NEW SCENARIO IN FOOD MARKETS

Food markets are characterised by an increasingly globalised and competitive market; consumer groups who increasingly worry about product quality (Grunert et al., 1996), a greater concentration in the distribution process and the existence of food overproduction with excesses of supply. All this makes companies change their quantity policy into an action centered on quality. There is a clear intent to balance supply and demand, adapt their production to consumers’ requirements and improve the competitiveness of the supply available. This way, companies within the EU, wanting to achieve a better and more competitive position, opt to improve the differentiation of the products by concentrating their efforts in a segment of the market, following the option of differentiation by concentration (Porter, 1998). One of the means to achieve said differentiation consists in a Regulatory Council acknowledging some special intrinsic properties such as excellent breeding, a special variety of grape, a specific and characteristic method of elaboration or production giving the product a first-rate quality. This is how to create an appellation of origin. In other words, an appellation of origin is the acknowledgement made by a Regulatory Council—indeed and autonomous—which certifies that the product fulfills the technical product specifications—e.g., geographical origin, specific variety or breed; a traditional method of production or elaboration or any special intrinsic characteristic (sensory or organoleptic)—in order to differentiate the product and guarantee the quality better adapts to consumers’ needs and demands.

Thus, the main objectives of an appellation of origin will be to differentiate food products, to protect products or brands against imitation from other countries, and to offer quality guarantees for the consumers who are more concerned about quality.

From the marketing standpoint, an appellation of origin may be considered as a brand attribute that reinforces the importance of the appellation. However, there is a large number of food products which have no brand. In this case, we analyse whether appellation of origin can be the basis for the creation of a brand, that is, the brand equity supplied by the appellation of origin. Specifically, it is desirable to know whether applying an appellation of origin to a food product can improve or enrich products’ quality and offer a constant quality which allows consumers to recognise immediately the product.
In order to answer this question, this paper has been divided into four sections and the elements explained as follows: First, the theoretical framework of information economics, which served as a basis for the developed hypothesis analysing the value of a brand achieved by an appellation of origin; then the methodology and the collection of data have been explained; next, the results have been analysed and discussed, ending with the main conclusions; finally, search limits and future lines of research have been explained.

**THE THEORY OF INFORMATION ECONOMICS: MARKETING-MIX ELEMENTS AS QUALITY CUES AND INFORMATION ASSETS**

A product’s objective quality can be defined by its excellency or technical superiority, which can be valued, fixed and evaluated by an expert (Curry and Faulds, 1986). Products must be made according to technical specifications. The level of adaptation of products to the technical specifications determines their quality. However, consumers usually lack enough background to recognise a food product’s microbiological properties, its nutritional content and its physio-chemical properties.

Literature dealing with Information Economics (Stigler, 1961; Ackerlof, 1970) offers a solution to the problem of asymmetrical information or imperfection on the market. To infer these properties and, consequently, perceive the quality contained in a product, consumers resort to signals or indicators (Steenkamp, 1990). In this way, consumers can infer products’ quality level and, at the same time, perceive that suppliers are concerned about complying with their quality promises.

From this central point, marketing researchers searched for signals that could help consumers to provide information on these intrinsic characteristics determining products’ quality (Kirmani and Rao, 2000). The signals that have been more investigated were: price, guarantees (Boulding and Kirmani, 1993; Erevelles et al., 1999), manufacturer’s or distributor’s trademark (Yoo et al., 2000), alliances between brands (Rao et al., 1999), umbrella brand (Wernerfeldt, 1988; Erdem, 1998), origin or appellation of origin (Bertozzi, 1995; Bello and Calvo, 2000), adverts (Kirmani, 1990), and packaging design (see Table 1). Previous literature concluded that for consumers a brand proves the most trustworthy signal, since suppliers commit themselves to comply with quality promises. The logic that backs up these signal properties on brand
name is credibility, that is to say, the vulnerability of a certain brand before market sanctions.

This last comment emphasizes the other question involved in this research, that is, to know the characteristics that signals must have so as to be effective. As it has just been explained, signals must be clear, that is, both easily perceived by consumers and credible (Erdem and Swait, 1998). This way, consumers not only perceive quality more clearly, but also said quality is subject to the sanction emanating from the market.

This theoretical framework shows whether the appellation of origin is a trustworthy signal that can be used as a brand, or if the commercial capital of said appellation of origin can be used to create a brand.

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**TABLE 1. Use of Extrinsic Cues As Information Assets**

<table>
<thead>
<tr>
<th>AUTHOR</th>
<th>CONTRIBUTION</th>
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</thead>
<tbody>
<tr>
<td>Kirmani (1990)</td>
<td><em>Advertising as a quality cue</em>: Consumers perceive significant investments in advertising as a commitment to the brand.</td>
</tr>
<tr>
<td>Han (1989)</td>
<td><em>Country of origin</em>: halo effect</td>
</tr>
<tr>
<td></td>
<td><em>Country of origin</em>: stereotype</td>
</tr>
<tr>
<td>Tirole (1990)</td>
<td><em>Price</em>: In the absence of information, consumers associate high prices with the high cost of manufacturing a high-quality product.</td>
</tr>
<tr>
<td>Blijana et al. (1996)</td>
<td><em>Country of origin</em> (in foreign markets) is used as a stereotype in purchase decisions.</td>
</tr>
<tr>
<td>Papadopoulos and Heslop (1993)</td>
<td>*Country of origin is used as a halo construct.</td>
</tr>
<tr>
<td>Wernerfelt (1988)</td>
<td><em>Brand name</em>: Companies can take advantage of their reputation for quality using the brand name of an established product for a new experiential commodity.</td>
</tr>
<tr>
<td></td>
<td><em>Umbrella brand</em>: Use of the same brand name for several different products.</td>
</tr>
<tr>
<td>Rao et al. (1999)</td>
<td><em>Brand ally as a quality cue.</em></td>
</tr>
</tbody>
</table>
HYPOTHESIS:
APPELLATIONS OF ORIGIN
AS SIGNALS OF QUALITY

Brand Names and Appellations of Origin

As we have seen in the introduction when explaining the trends in the food products sector, the justification of quality labels is to be found in the appearance of food product offerings that are characterised by mass agrofood production and overproduction (Sánchez and Rivera, 1996)–this hypothesis is especially applicable to meat–as well as the growing market concern for quality (Grunert, 1997). One of the responses given to meet these demands has been products with an appellation of origin of the agrofood sector. Given that it is a new classification and no precedents exist, it has been approached, as will be seen, from different–and sometimes opposite–points of view.

From the marketing standpoint, an appellation of origin, depending on whether the product has a brand name, can be regarded as an umbrella brand, a brand attribute or a brand in its own right (Bello Acebrón and Calvo Dopico, 1998).

a. An appellation of origin can be regarded as an umbrella brand or collective brand since the categorisation of products based on the appellation of origin implies a differentiation of product characteristics wider in scope than the actual brand name. For example, the country of origin is used as a stereotype in purchase decisions. Rioja wine is the collective brand which includes brands like Siglo, Paternina, etc.

b. It also may be the case that it functions as a brand attribute when the brand name has more notoriety than the appellation of origin.

c. As suggested by recent research, it may also be a brand in its own right when the product does not have a brand name. This is so because, although the appellation of origin is not a brand, it does perform the functions of one. Specifically, a brand improves quality perception and guarantees a certain level of homogeneity within a product.

In particular in the case of beef, a product with a guarantee of origin brings about a three-fold effect:

a. On the one hand, the fact that the appellation of origin adheres to a Regulatory Council backs up such intrinsic quality guarantees of
the product as breed, feeding and rearing, which give it improved and better objective quality. Logically, this differentiation will have an effect if consumers are able to perceive—vis-à-vis the appellation—that the meat is better. The previous research and results suggest that brand improves perception levels of the product’s intrinsic attributes; this is the so-called “halo effect” (Leuthesser et al., 1995; Ruiz Vega et al., 2001). Earlier research has shown that brand names have a favourable effect on consumers’ perception of quality (Del Río et al., 1999; Dodds et al., 1991). Therefore, the first hypothesis can be already constructed:

**H1: The appellation of origin increases perception levels of product’s intrinsic attributes (the so-called halo effect).**

b. In the case of perishable products that have no brand, the reality is that any identification on a product helps consumers to identify immediately the product. This is very important when dealing with the bovine sector since there is a large variability of intrinsic properties and a lot of cuts are offered at the sales point. Said variability of intrinsic properties—also known as risk of perceived quality (Steenkamp, 1990)—is what impedes consumers to know or recognise a certain type of meat (veal, beef, young beef) or the piece of meat they have in front of them. In this case, an appellation of origin shall play this part, since appellations group those animals with special intrinsic characteristics such as origin, the kind of feeding, breed, as well as the health control at the moment of slaughter. This information can be perceived by consumers through the labels on different pieces of beef. Therefore, appellations of origin allow consumers to reduce the amount of effort involved in gathering information and simplify product evaluation when purchasing, that is, decrease the costs of purchase-related information searches. The brand name “Ternera Gallega” can guarantee consumers a certain degree of homogeneity, that is, it reduces the variability of quality evaluations.

**H2: The appellation of origin guarantees a certain degree of homogeneity.**

c. Lastly, meat is a perishable product and consumers demand that it complies with sanitary requirements and guarantees that supply has the authenticity necessary for them to place their trust in the
product they want to acquire. Brand names are going to perform this function. By ensuring intrinsic properties throughout the food chain, appellations of origin provide the market with a product that is safe and totally healthy. That way, sellers provide purchasers with a credible information about quality, which is not observable when seeing the product. Therefore, the third hypothesis of our research can be created.

\( H_3: \) The appellation of origin increases food safety levels in the product.

**METHODOLOGY**

Specifically, we evaluate whether the application of an appellation gives added value to the product in the eyes of the consumer and reduces quality evaluations when beef is bought and consumed. What we set out to find is whether or not this treatment generates consumer expectations or not, and if it does, whether these expectations are fulfilled when the meat is consumed. In essence our goal is to discover if the appellation has a halo effect which can act as a basis for the creation of a brand.

**Experiment Design and Procedure**

The experiment was conducted in the university lunchroom at the Elviña campus on June 2001. The meat was refrigerated at 0-2°C. The meat had been delivered the day before by COCARGA, S.A., a company which ensured us that it met the required standards (the pieces were similar and one of them was labelled as “Ternera Gallega,” while the other was not). One hundred and twenty-five individuals had been selected. During the experiment, participants were asked to evaluate two beef fillets that had the same organoleptic properties, with the sole difference being the extrinsic cue of the appellation of origin, which in our case was the specific appellation “Ternera Gallega.” Each fillet was tagged with a letter that clearly identified it (the letters K and C, respectively). Consumers took their fillets home and evaluated them in different contexts of reference. At the moment of visual perception, consumers infer quality by means of physical appearance. In this reference context, consumers evaluate the two fillets on the basis of appearance, depending on whether they regard the fillet as having a poor,
average, good or excellent appearance. At the moment of consumption, sensory evaluation was based on the sensory properties of taste and measured on a five-point scale: from “didn’t like it at all” to “liked it a lot.” Afterwards, interviewees were asked to describe their satisfaction with one piece of beef or the other, also using a five-point scale (see Table 2). Finally, interviewees evaluated the levels of food safety between labelled and unlabelled meat. Logically, and due to the fact that there were no intrinsic differences in the properties of the two pieces of meat, all the perceived differences had to stem from the appellation of origin and this has been explained above as the “halo effect” (Leuthesser et al., 1995; Río Lanza et al., 1999).

**ANALYSIS OF RESULTS**

The Appellation of Origin Increases Perceived Quality: The “Halo Effect”

\[ H_1: \text{The appellation of origin increases perception levels of product intrinsic attributes (the so-called halo effect).} \]

The first hypothesis to be proven was whether the labelled meat—the one with the “Ternera Gallega” appellation of origin—when considering physical appearance and sensory evaluation, obtained higher marks at the moment of purchase or at the moment of consumption, as well as the satisfaction obtained. As shown in the table below, the average difference test confirmed that the beef identified as “Ternera Gallega” obtained higher marks in visual and sensory evaluations (see Table 3). The appellation of origin plays an important role in the attribution of superior quality. The sensory evaluation and resultant satisfaction fit in with the generated expectations: the product tastes better because it is expected to be better (Teas and Agarwal, 2000).

Thus, this serves to confirm hypothesis number 1 which claims that the halo effect created by the appellation: in all situations consumers attribute higher scores. The creation of a brand from the going-concern value generated by the specific appellation provides end consumers with added value, since in all reference contexts there is a difference in average values that exceeds 0.5 points and therefore the differences are significant (see Table 4). This so-called “halo effect” can explain the brand image provided to consumers because of its belonging to the specific appellation of “Ternera Gallega.”
H2: The appellation of origin guarantees a certain degree of homogeneity.

In order to prove this hypothesis, we measured the variability of physical appearance evaluations and sensory evaluation at the moment of consumption. As can be seen in the enclosed table, the standard deviation for the observations is less in the case of meat with “Ternera Gallega” appellation of origin. Physical appearance evaluations and sensory evaluation at the moment of consumption have a lower vari-
ability in the case of labelled meat. This result supports the hypothesis explained in the theory: the appellation of origin offers a determined quality level that is maintained constant on the market. This is what favours its identification and makes the evaluations have a lower variability (see Table 5), therefore the discord is reduced at the moment of consumption. We can prove the hypothesis proposed previously: an appellation of origin guarantees consumers a certain degree of homogeneity or, in other words, reduces the variability of quality evaluations.

**Appellation of Origin As an Indicator of Food Safety**

\[ H_3: \text{The appellation of origin increases food safety levels in the product.} \]

Nevertheless, as shown in our last hypothesis, an appellation of origin is not a food safety signal, even though the meat with a “Ternera Gallega” label obtained higher marks than the one without any label, as far as healthiness is concerned. As can be seen in the difference of averages test (see Table 6), consumers did not detect differences in the levels of food safety between labelled and unlabelled meat. The differences between the two are insignificant, reaching respective values of 3.85 and 3.80, making it so that we cannot accept the hypothesis that we have posited.

**CONCLUSIONS**

In the chapter of conclusions, we highlight the main contributions carried out in this research work. Scientific contribution in this research

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**TABLE 4. Difference in Average Values of Marks for the Different Reference Contexts Between Beef With and Without an Appellation (n = 125 Observations)**

<table>
<thead>
<tr>
<th>Reference context</th>
<th>Difference in average values</th>
<th>Standard deviation from average</th>
<th>T Student</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual perception</td>
<td>.52*</td>
<td>1.19</td>
<td>5.585</td>
<td>.000</td>
</tr>
<tr>
<td>Sensory evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumption</td>
<td>.59*</td>
<td>1.15</td>
<td>5.677</td>
<td>.000</td>
</tr>
<tr>
<td>Satisfaction with the product</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After consumption</td>
<td>.55*</td>
<td>1.08</td>
<td>5.630</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Significant to 1%.
Source: Author's own research.
work was to prove that, in the case of products without any brand, appellations of origin work as brands since they improve perception of products’ intrinsic attributes—the so-called “halo effect” according to some authors. They also reduce the variability of quality evaluations because a brand name guarantees a certain degree of homogeneity. Therefore, the appellation of origin adds value to food products and has a very important effect on quality expectations at the moment of both purchase and consumption.

On the other hand, those attributes—signals in our case—which serve not only for consumers to be able to perceive quality contained in a product, but also are the guarantee of a determined level of quality and healthiness, were identified. By ensuring and controlling the properties of origin, the kind of feeding, the age of the animal when slaughtered, its breed, as well as the health control at the moment of slaughter, the market is provided with a product having all the guarantees of quality and safety.

Nowadays, the appellation of origin is a defensive strategy which is used in order to protect local markets from competition. The added value generated by the appellation should be used to introduce the products into foreign markets, since it is there where the product is more clearly acknowledged by the end consumer.

TABLE 5. Standard Deviation of Physical Appearance, Sensory Evaluation and Satisfaction for Labelled and Unlabelled Beef (n = 125 Observations)

<table>
<thead>
<tr>
<th></th>
<th>Physical Appearance</th>
<th>Sensory Evaluation</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labelled beef</td>
<td>0.7</td>
<td>0.80</td>
<td>0.69</td>
</tr>
<tr>
<td>Unlabelled beef</td>
<td>1.07</td>
<td>0.95</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Source: Own elaboration.

TABLE 6. Average Values of Scores of Food Safety for Beef With and Without an Appellation (n = 125 Observations)

<table>
<thead>
<tr>
<th></th>
<th>Labelled beef</th>
<th>Unlabelled beef</th>
<th>Difference in average terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Safety</td>
<td>3.97</td>
<td>3.91</td>
<td>0.06*</td>
</tr>
</tbody>
</table>

*Not significant.

Source: Author’s own research.
The creation of a producers’ brand under the aegis of an appellation of origin would provide producers with more bargaining power in their dealings with meat-packers/slaughterhouses and distributors.

**LIMITATIONS AND FURTHER RESEARCH AVENUES**

It is important to observe that this research has been based on a very small sample. It would be therefore necessary to carry out more empirical research in other geographical areas so as to prove the improvement in certification and guarantee that the information provided by an appellation of origin represents for consumers. In this sense, it is also important to observe that products’ origin signal is a signal with a high value as far as consumers are concerned, in particular on international markets.

Another point necessary to investigate is the possibility of imitation that can arise on occasions. The disadvantage of appellations of origin or umbrella brands is that their action attracts other companies which get a profit based on the image created by the appellation itself.

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