



Analysis of the commercial value of rabbit meat based on positioning of the different types of fresh meat

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Abstract

In-depth knowledge of consumers' perceptions of value is considered a critical success factor in today's competitive market. There is very little information about the perception that consumers have of rabbit meat compared to other types of meat (mainly beef and pork). To identify the consumer perception of rabbit meat in Spain, two marketing tools were used: positioning and image analysis. To this end, a survey was carried out in Spain mainland with an error of 3.53% and a confidence level of 95.5%. According to the positioning analysis, rabbit meat competed with turkey for the "low fat" and "healthy" attributes. Rabbit meat had in its favour that it was considered more "economical" than turkey. Commercially, rabbit meat did not compete with any other fresh meat and it was not associated with any other adjective. The image that consumers had of rabbit meat was that it is a clean, healthy and easy to find meat. Two clearly distinguished groups were also found: consumers who rated rabbit meat more positively and consumers that did so less positively. These two groups were defined by the variables "educational level", "rabbit meat consumption by children under 18 residing in the home", "geographical area" and "habitual residence". For the variables "gender", "age", "number of people in the home" and "presence of children younger than 18 years in the home", there were no significant differences. These results are very useful for the different value chain stakeholders, who can set different marketing strategies to improve rabbit meat consumption.

Additional keywords: product image; product position; positioning map; consumer profile; commercial market value; quality.

Authors' contributions: All authors conceived and designed the research, and interpreted the data. Performed the statistical analysis: LMV and CEP. Wrote the paper: ABP and JBV.

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Introduction

When gauging the commercial market value of a commodity, different measures are usually applied. For example, one of them is the percentage of the monetary units or physical units that this product represents within the corresponding sector, in other words, the market share. However, in marketing, measuring this commercial market value is determined by the perceptions of consumers. In particular, there are two concepts that help us measure it. These are image and positioning.

Brand image is the way the product/brand is defined by consumers based on important attributes. In turn, the product position is the place the product occupies in consumers' minds relative to competing products (Kotler & Armstrong, 2017). In other words, the positioning is a

representation of the market perception of brands as well as the market perception of brands and their attributes. Attributes define or represent a product decomposed into its basic variables. Positioning is not the brand/company image. In the image, only a brand, or product, is depicted so there can be no relative comparisons. The essence of the positioning method is to have both the brands and the attributes in the same positioning map (Kotler & Keller, 2015). The position of attributes and brands helps to analyse the association between them. When the same attribute is associated with several brands or products, we can ascertain the competition between brands. Likewise, if there is an attribute without any brand nearby, it indicates a potential market opportunity. Repositioning a product or brand can be proposed when there are no attributes around. However, the repositioning is not always feasible (Kotler & Armstrong, 2017).

These two concepts can help us better understand consumer behaviour towards fresh meat, given the current situation of the sector due to the changing consumer demand (Resurreccion, 2013). In Spain, the decline in fresh meat consumption since 2008 has affected the whole meat sector, although there are some exceptions such as turkey, whose total consumption rose by 2.8% in 2016 compared to 2015 (MAGRAMA, 2017). This data leads us to reflect on consumer perceptions towards the different kinds of meat and their key attributes. Henchion *et al.* (2014) noted how the meat quality will be a key factor for consumers to the detriment of the product price or the income of the consumers. Korzen & Lassen (2010) described how the perceptions of quality depended on two contexts: the “everyday context” (of the consumer that purchases, prepares and eats the meat) and the “production context” (the pre-consumer side of the value chain: primary production, slaughtering and meat processing). Grunert *et al.* (2004) analysed consumer perceptions of meat quality, focusing on beef and pork. The authors described the various intrinsic and extrinsic quality cues perceived by the consumer. Intrinsic quality cues are those which are physically part of the product itself (e.g. colour) while extrinsic cues are not physically part of the product (price) (Grunert, 2006). Acebrón & Dopico (2000) considered that consumers infer the quality of beef on the basis of intrinsic (colour, freshness and visible fat) and extrinsic (price, promotion, designation of origin and presentation) quality cues.

In beef, pork and chicken, Glitsch (2000) found that the place of purchase, colour, flavour and freshness are considered quality indicators of the three fresh meats in six European countries. Becker *et al.* (2000) reported similar outcomes for the same three fresh meats, plus the country of origin variable as an extrinsic cue for quality selection in the shop and for assessing the safety of meat. Font-i-Furnols & Guerrero (2014) grouped the preference factors towards pork, beef and lamb into three groups: psychological (beliefs, attitudes and expectations), sensorial (visual appearance, in-mouth texture and flavour) and marketing (price and quality labelling). Troy & Kerry (2010) organised meat quality cues at point of sale (colour, packaged meat colour, visible drip and visible fat), point of consumption (tenderness, flavour, juiciness and succulence) and major background cues (safety, nutrition, sustainability and ethics). Many authors point to the growing importance of this latter group of attributes (Verbeke & Viaene, 2000; Bernués *et al.*, 2003; Resurreccion, 2013; Henchion *et al.*, 2014). Specifically for rabbit, Kallas & Gil (2012) noted that for consumers of rabbit meat in Catalonia (Spain) the price is considered less important than other factors (such as local origin, “certified

quality” brand and “boneless” rabbit meat format). However, non-consumers stated the economic factor as the main limiting factor for purchasing this kind of meat. Buitrago-Vera *et al.* (2016) found that the reasons for rabbit meat consumption at home are: it is tasty, healthy, not fattening (low fat), a high quality meat and a good price (it is cheap). In short, there is no consensus on the attributes to be used to measure or assess the quality of fresh meat. It should be noted that there are very few studies that have analysed rabbit meat. Nor were any other brand image or positioning studies found in the fresh meat sector, except for the one carried out by Prinsloo *et al.* (2014) in South Africa for branded meat products. In that case, the authors compared the attributes associated with three brands of meat sold in the supermarkets of Middelburg, Mpumalanga. The attributes used were quality and staff competence.

In Spain, the different types of fresh meat are consumed from highest to lowest frequency in the following order: chicken, beef, pork, turkey, rabbit and lamb, with chicken the fresh meat most often consumed (Escribá-Pérez *et al.*, 2017). Of the six meats analysed, rabbit meat is the fifth most consumed by frequency. In addition, the rabbit meat industry is certainly facing a critical, complex, and challenging period that is characterised by a progressive falloff in consumption (Cullere & Dalle Zotte, 2018). In this situation, it is worth asking how this fresh meat is perceived by consumers. So, the overall aim of this research is to determine which attributes are associated with rabbit meat, both in itself and in relation to the other types of fresh meat consumed in Spain, in order to increase its consumption. This general aim is broken down into the following three specific objectives: i) to draw up the positioning map for the different types of fresh meat; ii) to analyse the image of rabbit meat; and, finally, iii) to obtain the sociodemographic consumer profile based on consumer perception of rabbit meat.

Material and methods

Study area and sample selection

We carried out a survey in peninsular Spain, *i.e.* throughout Spanish territory, except for the Balearic Islands, Canary Isles, Ceuta and Melilla. The consumer profile selected was responsible for purchasing at home, consuming any type of meat at least once every two months and aged from 25 to 74 years old. The interview was by telephone and held using CATI (Computer Assisted Telephone Interview) software. Telephone numbers were randomly selected from public telephone listings.

The sample size was 800 interviews, for an error of 3.53% and a confidence level of 95.5% (2 sigma). The percentages of population with the feature studied (p) and without the feature studied (q) were considered 0.5. The error was below the desirable limit of 4% indicated by Cea (2010) in social research. After the data gathering stage, we detected 51 cases with missing data. As this figure was no more than 10% of the total number of cases (Malhotra, 2008), we assumed that the presence of these cases was totally random. Once these cases were removed, we were left with a total of 749 valid cases.

Attributes and variables

The meats analysed were chicken, beef, pork, turkey, rabbit and lamb. To analyse the positioning of the different types of meat, the four attributes used were: "healthy", "low fat", "tasty" and "economical". Respondents indicated those attributes with which they identified each of the types of meat. They could point to several attributes or none at all. These four attributes were chosen based on the research by Buitrago-Vera *et al.* (2016). Regarding the rest of the bibliography analysed (Grunert *et al.*, 2004; Grunert, 2006; Troy & Kerry, 2010; Font-i-Furnols & Guerrero, 2014), "healthy" and "low fat" referred to the growing group of attributes related to aspects of major background cues. "Tasty" was chosen as an intrinsic cue for quality selection at the point of consumption and "economical" (price reference) was chosen as an extrinsic cue for quality selection at point of sale and as marketing preference factor.

When analysing the image of rabbit meat, nine attributes were used, rated on a Likert scale from 1 to 5, where one was "Totally disagree" and five was "Totally agree". We selected a 5-point scale because Cea (2010) recommends not exceeding five options on a Likert scale for telephone surveys. These nine attributes were designed to describe the perception that consumers have of rabbit meat both at place of purchase and point of consumption. We included attributes which refer to both extrinsic and intrinsic quality indicators. These were nine statements showing a positive aspect of rabbit meat. So, the higher the score, the greater the level of agreement, from which we deduced a positive image of rabbit meat. The reliability measure applied to determine the degree of internal consistency of the Likert scale used was Cronbach's alpha. If the measuring instrument is consistent, the Cronbach's alpha is greater than 0.7 (Hair *et al.*, 1999).

To define the sociodemographic profile of the consumer based on their image of rabbit meat, the variables analysed were: i) "gender": male or female;

ii) "age": the ranks considered were 25-34, 35-44, 45-54, 55-64, and 65-75; iii) "educational level": the options were no qualifications, higher school, FP1-secondary school, FP2-secondary school and higher education (FP is equivalent to Vocational Education and Training (VET)); iv) "number of people in the home": from single to more than five; v) "presence of children younger than 18 years in the home": if there were minors or not; vi) "rabbit meat consumption by children under 18 residing in the home": if the minors consumed or not rabbit meat; vii) "geographical area": the interviews took place in mainland Spain divided into Nielsen areas (North East, East, South, Central, North West, North-Central, Madrid and Barcelona); and viii) "habitual residence": the type of population depending on the number of inhabitants (<10,000; 10,000-50,000; 50,001-100,000; 100,001-500,000; >500,000).

Statistical analysis

During the telephone interviews, a database was generated with the response codes and transferred to a file compatible with the software used to analyse the results, IBM SPSS Statistics 20 (SPSS, 2011). Depending on the target, a different statistical analysis was used. First, for the positioning analysis, a factorial analysis of correspondences was performed based on the table of selection frequencies for each of the four attributes. If the explanation of the variance for both axes is higher than 60%, the result can be analysed graphically (Hair *et al.*, 1999). Second, to describe the image of rabbit meat and the sociodemographic profile of the consumer based on it, basic statistics and cross tabulation of mean values were used. The statistical significance test for differences between mean values was performed by Snedecor's F-test.

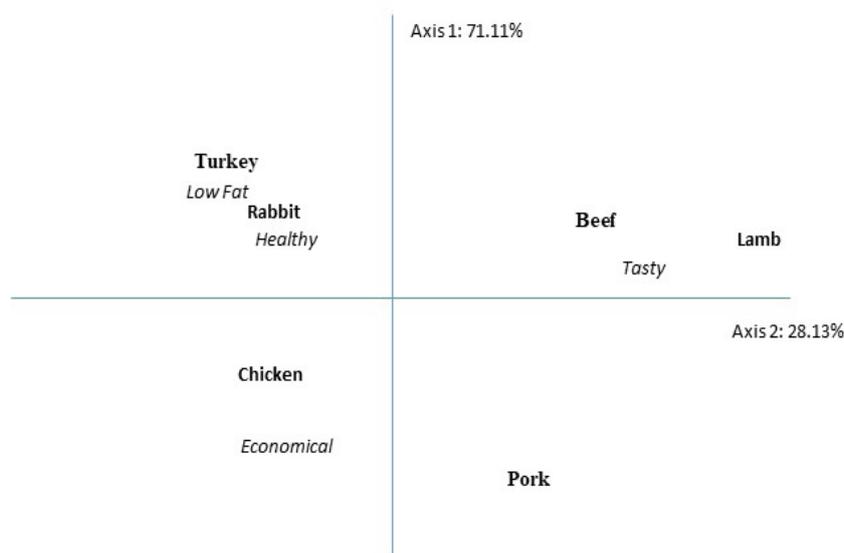
Results

Positioning of the different types of meat

Table 1 shows the list of attribute selection frequencies by the respondents for each of the types of meat analysed. From this table, the factorial correspondence analysis was carried out, which resulted in two different axes. The first axis explained 71.11% of the variance and the second, 28.13%, which, taken together, explained 99.24% of the variance for both axes. Fig. 1 is the positioning map obtained for fresh meat. In it, we can see the different attributes assigned to each type of fresh meat. It clearly shows that turkey and rabbit meat were associated with the "low fat" and "healthy" attributes. Rabbit meat therefore presented a similar positioning

Table 1. Frequency table for analysis of the positioning of fresh meats (n).

Item	Healthy		Low fat		Tasty		Economical	
	n	%	n	%	n	%	n	%
Chicken	369	39.09	371	34.64	144	14.88	552	58.85
Beef	108	11.44	72	6.72	344	35.54	25	2.67
Pork	15	1.59	18	1.68	144	14.88	172	18.34
Turkey	200	21.19	300	28.01	41	4.24	65	6.93
Rabbit	229	24.26	297	27.73	89	9.19	116	12.37
Lamb	23	2.44	13	1.21	206	21.28	8	0.85
Total	944	100.00	1071	100.00	968	100.00	938	100.00

**Figure 1.** Fresh meats positioning map.

to turkey. To a lesser extent, rabbit meat was also associated with the “economical” attribute. Although rabbit meat was perceived as more economical than turkey, it is consumed less often.

Chicken is the fresh meat most frequently consumed. This may be because consumers associated it with the most “economical” fresh meat, with more “low fat” (less fat) and more “healthy”. The “tasty” attribute was mainly associated with beef and lamb. Beef was also associated, to a lesser degree, with “healthy”. No other adjectives were attributed to lamb. Perhaps this is one of the reasons that it is the fresh meat least frequently consumed of the six fresh meats analysed. Finally, pork was considered the second most “economical” and the third most “tasty” meat. As can be seen in Fig. 1, there was no attribute clearly associated with pork as in the rest of the cases. Even so, pork is the third most consumed fresh meat according to consumption frequency. Based on these outcomes, the question remains about which attributes are most highly rated in the image of rabbit meat. For this reason, we proceed to analyse the image of rabbit meat in depth below.

Image of rabbit meat

The nine items used to describe the image of rabbit meat are shown in Table 2. The Cronbach's alpha obtained was 0.89, confirming the consistency of the measuring instrument. The items receiving the highest score were “I easily find it in the premises where I do my shopping” (with an average of 4.45) and “Rabbit is a clean and healthy meat” (4.44). The lowest scores corresponded to the items “It's tasty meat, with flavour” (3.86) and “Rabbit meat is good value for money” (4.11). When analysing the standard deviations, the items with a higher standard deviation were “It's tasty meat, with flavour” (1.25) and “It's a quick and easy meat to cook” (0.86). In contrast, “Rabbit is a clean and healthy meat” (0.67) and “Rabbit meat is digestive, it doesn't sit heavy (0.73)” had a lower standard deviation.

To define the sociodemographic profile of the consumer based on their image of rabbit meat, we performed a cross tabulation of mean values among the previous items with the eight sociodemographic

Table 2. Rabbit meat image. Likert scale (from 1 to 5).

Item	Average	Std. Dev.
I easily find it in the premises where I do my shopping	4.45	0.82
Rabbit is a clean and healthy meat	4.44	0.67
Rabbit meat can be prepared in many ways	4.42	0.74
Rabbit meat is digestive, it doesn't sit heavy	4.38	0.73
Rabbit meat has many nutritional properties	4.25	0.77
It's a quick and easy meat to cook	4.16	0.86
It's a high quality meat	4.16	0.81
Rabbit meat is good value for money	4.11	0.82
It's a tasty meat, with flavour	3.86	1.25

Cronbach's alpha = 0.89.

variables considered. The results can be included in two large groups. On one hand, for "gender", "age", "number of people in the home" and "presence of children younger than 18 in the home", there were no significant differences. The tables with these results are not shown in the article but are available on demand.

On the other hand, the second group of results includes those sociodemographic variables for which there were significant differences with the items that describe the image of rabbit meat. According to the "educational level" variable (Table 3), there were significant differences for all the items for the image except for "Rabbit is a clean and healthy meat". In this case, the total average was 4.44, so it can be

deduced that everyone agreed regardless of their level of education. For the remaining items, we see how the higher education group (representing 31.4% of the total) always scored below the global average. Interviewees with FP2-secondary school (31.9%) level education almost always scored below the global average, or were very close to the mean. The higher school (24.2%) group scored above the global average in all cases. The group without qualifications (1.1%) also scored above average, except for "I easily find it in the premises where I do my shopping", "Rabbit meat has many nutritional properties" and "It's a tasty meat, with flavour", taking into account only those items for which there were significant differences. In general terms, it could be said that those who had a higher level of education had a worse image of rabbit meat, while those with a lower level of education or without formal qualifications had a more positive image of rabbit meat. This trend was wholly evident in those items related to cooking.

According to the variable "Rabbit meat consumption by those under 18 years residing in the home" (Table 4), those households in which children consumed rabbit meat scored above the average for all the items that define the image of rabbit meat. Nevertheless, there were significant differences for all items except "Rabbit meat can be prepared in many ways". In the total sample, 239 households had resident children of less than 18 years of age. In this subsample, in 47.5% of cases these minors were consuming rabbit meat. The global average for each of the items is different because only those households with minors were taken into account. In this new scenario, the highest scoring items

Table 3. Average image of rabbit meat by educational level.

	No qualifications (1.1%)	Higher School (24.2%)	FP1-Secondary School (11.4%)	FP2-Secondary School (31.9%)	Higher Education (31.4%)	Total
Rabbit is a clean and healthy meat	4.37	4.52	4.46	4.44	4.37	4.44
I easily find it in the premises where I do my shopping **	4.25	4.65	4.41	4.46	4.32	4.45
Rabbit meat has many nutritional properties *	4.00	4.39	4.29	4.22	4.16	4.25
Rabbit meat is good value for money **	4.28	4.32	4.16	3.97	4.05	4.11
It's a tasty meat, with flavour *	3.75	4.13	3.86	3.72	3.79	3.86
It's a quick and easy meat to cook **	4.43	4.41	4.26	4.18	3.90	4.16
It's a high quality meat *	4.37	4.32	4.19	4.11	4.06	4.16
Rabbit meat can be prepared in many ways **	4.62	4.63	4.43	4.43	4.24	4.42
Rabbit meat is digestive, it doesn't sit heavy **	4.50	4.53	4.45	4.37	4.25	4.38

*, **: Significant differences ($p < 0.05$, $p < 0.01$, respectively). FP2 = Vocational Education and Training (VET). FP1 = a basic VET available in Spain.

Table 4. Average image of rabbit meat by rabbit meat consumption by children less than 18 years old residing in the home (n = 239)

	Yes (47.5%)	No (52.5%)	Total
Rabbit is a clean and healthy meat *	4.56	4.34	4.44
I easily find it in the premises where I do my shopping *	4.52	4.25	4.38
Rabbit meat has many nutritional properties**	4.41	4.05	4.23
Rabbit meat is good value for money *	4.14	3.85	4.00
It's a tasty meat, with flavour **	4.36	3.25	3.79
It's a quick and easy meat to cook *	4.21	3.94	4.07
It's a high quality meat **	4.31	3.98	4.14
Rabbit meat can be prepared in many ways	4.37	4.26	4.31
Rabbit meat is digestive, it doesn't sit heavy**	4.48	4.15	4.31

*, **: Significant differences ($p < 0.05$, $p < 0.01$, respectively).

were “Rabbit is a clean and healthy meat” (4.44) and “I easily find it in the premises where I do my shopping” (4.38), whereas the lowest scoring items were “It's a tasty meat, with flavour” (3.79) and “Rabbit meat is good value for money” (4.00). If these results are compared with the global averages (Table 1), we can see that they follow the same pattern, with the highest and lowest scoring items coinciding. Again, the global average for all the items, except for “It's a tasty meat, with flavour”, was equal to or greater than a score of four.

The “geographical area” variable marked significant differences among the different parts of Spain for the nine items that define the image of rabbit meat (Table 5). The Central (13.4%) area had a very positive image of rabbit meat, scoring above the global average in all items, and the same went for the North-Central (11.9%) area, except for one item (“Rabbit meat can be prepared in many ways”). At the other end, we found Madrid (9.5%), where consumers had the worst image of rabbit meat, as they scored below the global average for all items. The second worst area in terms of rabbit meat

Table 5. Average image of rabbit meat by geographical area.

	NE (13.0%)	E (13.2%)	S (12.2%)	Central (13.4%)	NW (12.8%)	North- Central (11.9%)	Madrid (9.5%)	Barcelona (14.0%)	Total
Rabbit is a clean and healthy meat **	4.56	4.37	4.36	4.70	4.30	4.44	4.13	4.54	4.44
I easily find it in the premises where I do my shopping **	4.37	4.57	4.18	4.78	4.25	4.58	4.34	4.50	4.45
Rabbit meat has many nutritional properties**	4.16	4.12	4.32	4.62	4.18	4.45	3.93	4.17	4.25
Rabbit meat is good value for money **	3.84	4.25	3.93	4.57	4.25	4.31	3.88	3.82	4.11
It's a tasty meat, with flavour **	3.79	3.97	3.66	3.97	3.86	4.21	3.45	3.88	3.86
It's a quick and easy meat to cook **	3.98	4.36	3.93	4.43	4.21	4.26	3.92	4.11	4.16
It's a high quality meat**	4.08	4.07	4.19	4.51	4.19	4.23	3.79	4.10	4.16
Rabbit meat can be prepared in many ways**	4.46	4.49	4.29	4.68	4.24	4.41	4.15	4.53	4.42
Rabbit meat is digestive, it doesn't sit heavy **	4.44	4.45	4.31	4.69	4.25	4.38	3.98	4.42	4.38

*, **: Significant differences ($p < 0.05$, $p < 0.01$, respectively).

rating was the South (12.2%), as only two items scored above the global average (“Rabbit meat has many nutritional properties” and “It’s a high quality meat”).

All the other areas were in an intermediate situation. For example, in the East (13.2%), 6 items scored above the average and in Barcelona (14.0%) they scored five. In the North East (13.0%), only three items were rated above the average. Notably, these three areas coincided in the above average rating of “Rabbit meat can be prepared in many ways” and “Rabbit meat is digestive, it doesn’t sit heavy”. The East and Barcelona also coincided in “I easily find it in the premises when I do my shopping” and “It’s a tasty meat, with flavour”. So, we can see how these three areas share culinary habits and tastes regarding rabbit meat. Finally, North West (12.8%) area scored above average for the items “Rabbit meat is good value for money”, “It’s a quick and easy meat to cook” and “It’s a high quality meat”.

The “habitual residence” variable marked significant differences for all the items that define the image of rabbit meat, except for “I easily find it in the premises where I do my shopping” and “It’s a tasty meat, with flavour” (Table 6). The results showed a clear threshold value for 100,000 inhabitants. Cities with up to 100,000 inhabitants (57.6%) had a very positive image of rabbit meat, as they scored above the global average in almost all items. Consumers living in small cities with fewer than 10,000 inhabitants (19.7%) had the best image of rabbit meat, as all items scored above the global average.

In contrast, those cities with more than 100,000 inhabitants (from 100,001) (42.4%) had a worse image of rabbit meat, as all the scores were below the global average. Only one item scored above average in cities

with 100,001 to 500,000 inhabitants (25.1%), namely “Rabbit meat is good value for money”.

Discussion

In-depth knowledge of consumers' perceptions of value is considered a critical success factor in today's competitive market (McEachern & Schröder, 2004; Groot & Albusu, 2015). In marketing, two key concepts can be used to determine consumer perceptions: image and positioning. Product image is the way that consumers define the product in terms of important attributes. In contrast, the positioning of the product is the place the item occupies in the minds of consumers in relation to competitor products. According to the positioning analysis, rabbit meat competed commercially with turkey for the "low fat" and "healthy" attributes. Both types of meat were linked to lean meats, low in fat and suitable for those wishing to eat a clean, healthy and beneficial diet (Murcia, 2014). Rabbit meat had in its favour that it was considered more “economical” than turkey. However, this does not translate into higher frequency consumption compared to turkey meat. In the positioning map, rabbit meat did not compete with any other fresh meat and it was not associated with any other adjective.

According to the results of the image of rabbit meat, it is important to note that the mean of all the items, with the exception of “It’s tasty meat, with flavour”, had a score higher than four. Bearing in mind that we used a Likert scale (from 1 to 5), we may affirm that there was a high degree of agreement in all the statements

Table 6. Average image of rabbit meat by habitual residence.

	< 10,000 (19.7%)	10,000 to 50,000 (25.5%)	50,001 to 100,000 (12.4%)	100,001 to 500,000 (25.1%)	> 500,000 (17.3%)	Total
Rabbit is a clean and healthy meat **	4.58	4.41	4.56	4.41	4.26	4.44
I easily find it in the premises where I do my shopping	4.49	4.49	4.53	4.47	4.28	4.45
Rabbit meat has many nutritional properties **	4.41	4.29	4.35	4.16	4.08	4.25
Rabbit meat is good value for money **	4.29	4.07	4.18	4.21	3.75	4.11
It’s a tasty meat, with flavour	3.90	3.92	3.68	3.87	3.83	3.86
It’s a quick and easy meat to cook **	4.28	4.25	4.14	4.15	3.93	4.16
It’s a high quality meat**	4.39	4.15	4.24	4.12	3.89	4.16
Rabbit meat can be prepared in many ways*	4.53	4.47	4.51	4.31	4.33	4.42
Rabbit meat is digestive, it doesn’t sit heavy **	4.57	4.43	4.42	4.33	4.17	4.38

*,**: Significant differences ($p < 0.05$, $p < 0.01$, respectively).

proposed. So, we can see how rabbit meat was considered clean, healthy and easy to find. In contrast, it was less considered as a tasty meat and with good value for money. There was also a lot of divergence around whether it is tasty or not.

Once these consumer perceptions are identified, they must be transmitted throughout the value chain so that different agents can work on them (Zouaghi *et al.*, 2017). The rabbit meat value chain consists of input suppliers, producers, abattoirs, cutting plants and distribution. This value chain has become slightly more complicated nowadays, as distribution can follow two different paths: the traditional channel and the modern or large-scale distribution channel (Baviera-Puig *et al.*, 2017).

The work of value chain stakeholders can be of two types. First, if the products do not have the attributes that consumers value and perceive, they have to try to provide them as far as possible through new products, as proposed by Casillas-Peñuelas *et al.* (2015), new functionalities of current products, modifying or adjusting the price, etc. It can also help set the agenda for other researchers. For example, in the case of rabbit nutrition, research can be done into how to improve the flavour and make rabbit meat tastier, as it is the attribute rated lowest by consumers. Second, if they already have the attributes that consumers value and perceive, they have to work on how to transmit these attributes to consumers so that they can perceive them this way (Verbeke & Viaene, 1999).

In this research, we also found two clearly distinguished groups: consumers who rated rabbit meat more positively and consumers that did so less positively. The definition of these two groups of consumers can be used to carry out different marketing actions appropriate to each group (Kallas & Gil, 2012; Buitrago-Vera *et al.*, 2016; Gracia & de-Magistris, 2016). These two groups were defined by the variables “educational level”, “rabbit meat consumption by children under 18 residing in the home”, “geographical area” and “habitual residence”. For the variables “gender”, “age”, “number of people in the home” and “presence of children younger than 18 years in the home”, there were no significant differences. In other words, having a positive or negative image of rabbit meat did not depend on gender, age, size of the home or whether there were minors in the household or not.

The consumers with a more positive image of rabbit meat tended to be people with no formal educational qualifications or with only primary studies, located in the Spanish Central, North-Central and Eastern areas and Barcelona, living in cities with up to 100,000 inhabitants. If there were children under 18 in the household and they consumed rabbit meat, there were

clear significant differences in favour of a positive image of rabbit meat compared to homes where minors did not consume this type of meat.

These results can be related to those reported by Escribá-Pérez *et al.* (2017). These authors found that the average consumption frequency of rabbit meat increased in older people (over 55), in those with no formal qualifications or only primary education, in lower social classes (low and lower middle), in households with two or more than five members, and in homes without children under 18. Geographically, its consumption was located in the East and North-Central regions. Both studies coincide in terms of the “educational level” and “geographical area” variables. So, we can deduce that for both of these variables a positive image affects an increase in the frequency of consumption (Sans & Sanjuán-López, 2015).

In summary, we identified the consumer perception of rabbit meat in Spain using two marketing tools: positioning and image. This is very useful for the different value chain stakeholders, who can devise different marketing strategies to improve rabbit meat consumption. We also analysed the sociodemographic profile in order to improve these marketing strategies. Future research could focus on testing different communication messages, pricing strategies or launching new products in order to improve the four 'P's (product, place, price and promotion) of rabbit meat. Another future research line could be why turkey is becoming increasingly popular in comparison with rabbit meat, when the latter is considered more economical.

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