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CONSUMER PROFILE ANALYSIS FOR DIFFERENT TYPES OF MEAT IN SPAIN

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ABSTRACT

It is important to analyse the consumer profile of each type of meat to better adapt the marketing mix to each one. To this end, we examined the average consumption frequency of different types of meat based on two methodologies: consumer segmentation using the food-related lifestyle (FRL) framework, giving rise to 4 segments, and analysis of socio-demographic profiles. The variables used were: sex, age, educational level, social class, number of people in the household, presence of children younger than 18 in the home, geographical area and habitual residence. Beef was the only meat type significant in both analyses. Turkey meat only appeared as significant in the FRL analysis. The other meats (chicken, pork, rabbit and lamb) were only significant in the sociodemographic variables analysis. From the outcomes we may conclude that there is no single consumer profile, which rather depends on the type of meat.

KEYWORDS: Food-Related Lifestyle (FRL), consumption patterns, health, sociodemographic characteristics, fresh meat, marketing mix.

CONSUMER PROFILE ANALYSIS FOR DIFFERENT TYPES OF MEAT IN SPAIN

1. Introduction

Patterns in meat consumption are unpredictable and it is clear that changes are occurring in the way consumers behave towards food (Grunert, 2006). Consumers represent the final link in the food value chain, whereas the remaining links provide food products with the necessary value to satisfy consumer needs and wishes (González-Redondo & Sánchez-Martínez, 2014; Zokaei & Simons, 2006). Precisely because it is the last link in the chain, understanding how consumers act becomes vitally important, as the way their expectations are met has a decisive influence on their purchasing behaviour (Baba *et al.,* 2016; Font-i-Furnols & Guerrero, 2014; Vukasovič, 2010). Nor can we forget that the consumer is increasingly involved in and influencing the whole food chain, agriculture and science (Garnier, Klont, & Plastow, 2003).

Several researchers have identified different lifestyle changes and trends in consumer behaviour, and specifically in reference to fresh meat consumption. For example, Adams *et al.* (2015) and Díaz (2014) reported that despite women's incorporation to the labour market, they are still largely responsible for food purchasing and preparation. To this end, various industrial and distribution sectors have devised solutions to facilitate food purchasing and meal preparation by reducing the time needed for shopping and preparing the food, as the key element in this social shift is lack of time. Along similar lines, Petracci and Cavani (2013) stated that convenience items (pre-prepared, ready-to-eat foods, fresh cuts) constitute a response to the transformation in consumer habits in societies with a growing number of people living and working in urban environments, increasingly eating out and spending less time on food preparation, while at the same time the ability to cook at home is also in decline.

Concern about maintaining healthy lifestyles is also one of the trends most influencing food buying behaviour in consumers (Kang, Jun, & Arendt, 2015). Health is one of the main motivations for changing consumer habits and can lead to a change in the type of meat consumed, with consumers choosing meats that may provide greater health benefits or even going so far as to avoid consuming this foodstuff. Hathwar *et al.* (2012) considered health concerns and sociodemographic features among the most important factors influencing the changes in consumer demand for meat and meat products. In this sense, many authors strive to determine the sociodemographic characteristics that condition meat consumption (Borgogno *et al.,* 2015; Shi *et al.,* 2015).

The Food-Related Lifestyle (FRL) instrument interprets that lifestyles include subjective perceptions based on experience and information available to the consumer on products and involved in the configuration of values, as well as objective procedures consumers use to obtain, use or rule out foodstuffs, i.e. their feeding behaviour. The FRL interpretation thus describes a mindset that frames consumer behaviour and goes beyond the actions of individual behaviour (Bredahl & Grunert, 1997; Brunsø, Scholderer, &Grunert, 2004a). It therefore provides information to the food industry on the decisive factors in the perception of value by consumers (Grunert, Brunsø, & Bisp, 1993).

Scholderer *et al.* (2004) argue that consumers' cognitive structures are reflected by five dimensions. (i) Ways of shopping; (ii) Cooking methods; (iii) Quality aspects; (iv) Consumption situations; (v) Buying motives. Researchers have tested and validated the FRL model in several countries (Buckley, Cowan, & McCarthy, 2007; Dimech, Caputo, & Canavari*,* 2011; Grunert *et*

al., 2011, Nie & Zepeda, 2011; Rong-Da, 2014), confirming its suitability and validity as a useful tool for conducting research into consumers' food-related lifestyles.

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 9.1% in 2013 compared to 2012 (MAGRAMA, 2014). Nevertheless, figures for 2014 maintained the general tone of dwindling household consumption of fresh meat, with a falloff of 3.3% compared to 2013 (MAGRAMA, 2015). These data prompt us to question what is happening in consumer preferences towards fresh meat consumption. So, the aim of this research consisted of segmenting the consumers, using the food-related lifestyle (FRL) framework, characterising each segment according to the average consumption frequency of the main types of fresh meat available in the Spanish market and comparing these outcomes with the profiles obtained by different sociodemographic variables.

2. Methodology

2.1. Study area and sample selection

We carried out a survey of consumers responsible for their household purchasing. The consumer profile selected responds to an age range from 25 to 75 years, responsible for household shopping and buying meat or meat-based products at least once every two months. Consumers not matching this profile were ruled out. The survey area was Spain.

Fieldwork was carried out in the first fortnight of July 2014, in a telephone survey with CATI (Computer Assisted Telephone Interview) software as means of capture to assist the interviewer. The average interview lasted 12 minutes. Telephone numbers were randomly selected from public telephone listings.

The sample size was 800 interviews, for an error of 3.53 %, confidence level 95.5 % (two sigmas) and p=q=0.5. The error was below the desirable 4% limit indicated by Cea (2010) in social research. Data were purged using a univariate exploration procedure by means of a frequency table. This table revealed the presence of 51 cases with missing data, thereby undermining the quality of information. As the number of cases did not exceed 10% of the total, we assumed the presence of these cases to be totally random, in other words, there is no an underlying process that tends to skew the data, so the option chosen for the missing cases consisted of ruling them out (Malhotra, 2008). We finally analysed a total of 749 valid cases.

2.2. Variables

The variable examined to determine the consumer profile is the average frequency of consumption of each of the types of meat analysed: beef, chicken, pork, lamb, turkey and rabbit. This mean frequency is obtained from the consumption frequency scale considered (once a week, once a fortnight, once a month, once every 2 or 3 months, once a year, no consumption), from 1 to 6 respectively. Therefore, an average frequency around 1 means that the respondent consumes this type of meat once a week or more, i.e. very often.

The question on meat consumer food lifestyles is based on 16 items measured by means of a Likert scale with a 5-point range, from 1 "Strongly disagree" to 5 "Strongly agree", with a neutral midpoint at 3 "Neither agree nor disagree" (Table 1). We select a 5-point scale because Cea (2010) recommends not exceeding 5 options on a Likert scale for telephone surveys. Rong-

Da (2014) also uses a 5-point Likert scale when conducting the FRL tool. The items receiving the highest score were "I feel that eating with friends and family is an important part of my social life" (with an average of 4.61) and "I always try to get the best quality at the lowest price when buying food" (4.54). The lowest scores corresponded to the items "I often decide what to cook at the last minute" (2.12) and "At home, we regularly use ready-to-eat food items such as salads" (2.59).

Table 1. Descriptive statistics for the items measuring food-related lifestyle

Item	Average	Std. Dev.
I like to read the label of the food I buy to understand what's in it	4.05	1.05
I like shopping for food for my household	4.14	0.91
I'm on the lookout for changes in the price of food items that I buy regularly	3.70	1.16
I prefer to buy natural products such as products without preservatives	4.32	0.82
I always try to get the best quality at the lowest price when buying food	4.54	0.71
I like to try new foods	3.67	1.21
I believe it is more important to choose food items for their nutritional value than for their taste	3.47	1.07
I prefer fresh products to tinned or frozen products	4.51	0.73
I like to spend a lot of time cooking	3.38	1.36
I like to cook and experiment with new recipes	3.59	1.31
At home, we regularly use ready-to-eat food items such as salads	2.59	1.36
My family is involved in preparing meals	2.97	1.38
I often decide what to cook at the last minute	2.12	1.13
I like going to restaurants with friends and family	3.86	1.23
I find cooking gratifying	3.65	1.25
I feel that eating with friends and family is an important part of my social life	4.61	0.60

The sociodemographic variables analysed were: i) "sex": men or women; ii) "age": the ranks considered were 25-34, 35-44, 45-54, 55-64, 65-75; iii) "educational level": the options were no qualifications, higher school, FP1-secondary school, FP2-secondary school and higher education; iv) "social class": low, lower middle, middle, upper middle or upper; v) "number of people in the home": from single to more than 5; vi) "presence of children younger than 18 years in the home": if there are minors or not; vii) "geographical area": covering all the areas of mainland Spain (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). Social class was obtained by crossing the education level and profession variables, as suggested by Alvira (2011).

2.3. Statistical analysis

Different statistical techniques were applied to analyse the results. First, we performed a frequency distribution analysis to describe the fresh meat consumption of the sample.

Then, to find the food lifestyle segments, we used factor analysis and cluster analysis (Sánchez & Sanjuán, 2002). The factor analysis was used to reduce the initial number of items. The techniques used to ensure minimal information loss were Bartlett's sphericity test and the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) (Uriel & Aldás, 2005). The extraction method used was principal component analysis (Santesmases, 2009). The cluster analysis was configured by hierarchical procedure. Ward's method was applied to obtain the clusters, using Euclidean distance squared as a measure of similarity between objects and deciding the number of clusters that make up the solution by means of a dendrogram.

Finally, to compare the average meat consumption frequency among the different variables studied, we used cross tabulation of mean values. The statistical significance test for differences between mean values was performed by Snedecor's F-test.

3. Results and discussion

3.1. Sample meat consumption

Table 2 shows the consumption frequency of the different types of meat in the sample. Chicken was the meat most often consumed, as 90.87% of interviewees ate chicken at least once a week. The second most frequently consumed meat was beef (63.62%), with pork in third place (52.62%). These 3 types of meat stand out as having very high values in higher frequency intervals, while presenting much lower values in the lower frequency intervals.

This behaviour pattern was reversed in the remaining 3 types of meat. Turkey meat was the fourth most commonly consumed, at 32.35%. However, 35.84% of respondents stated that they did not consume turkey meat. The same goes for rabbit, which was consumed by 20.54% once a week or more, whereas 34.63% did not consume this meat. Finally, lamb was the least frequently consumed meat type. Only 10.47% consumed lamb at least once a week. In contrast, 20.27% were non-consumers of lamb.

Table 2. Consumption frequency of different meat types

	Chicken (%)	Beef (%)	Pork (%)	Turkey (%)	Rabbit (%)	Lamb (%)
Once a week or more	90.87	63.62	52.62	32.35	20.54	10.47
Once every 2 weeks	6.17	17.72	22.82	9.66	16.51	14.90
Once a month	1.21	8.46	10.47	8.86	13.29	20.94
Once every 2 or 3 months	0.67	3.89	4.56	7.65	9.66	19.06
Once a year	0.27	1.88	1.48	5.64	5.37	14.36
No consumption	0.81	4.43	8.05	35.84	34.63	20.27
Total	100	100	100	100	100	100

3.2. Consumption per FRL segments

The factor analysis yielded five factors that explained 55.37% of the total variance. The Kaiser, Meyer and Olkin (KMO) measure of sampling adequacy yielded a value of 0.744, which was greater than the minimum acceptable value of 0.50 (Hair *et al.,* 2008). Bartlett's sphericity test demonstrated the adequacy of the factor analysis, yielding a p-value of 0.000 at a significance level of 0.05.

The factor analysis yielded the following five factors (Table 3): (i) 'Love of cooking', which comprises items related to the act of cooking, assessing not only aspects linked to the preparation of food, but also those related to cooking as a pleasurable and fulfilling activity. (ii) 'Freshness and price/quality ratio', comprising items related to the concept of fresh, natural, high-quality produce. (iii) 'Active and social purchasing', consisting of items related to a proactive attitude towards purchasing food and to positive evaluations of the social aspects of food. (iv)'Out-of-home and convenience consumption', which comprises items referring to eating as an enjoyable social activity and as a convenience rather than an activity that requires

careful planning; (v) 'Nutrition and innovation', comprising items that assess how consumers link food to health and socialising and adopt an open attitude towards innovation in food.

Table 3. Factor analysis

Items	Factors				
	Love of cooking	Freshness and price/quality ratio	Active and social purchasing	Out-of-home and convenience consumption	Nutrition and innovation
I like to cook and experiment with new recipes	0.851	0.125	0.146	0.011	0.157
I find cooking gratifying	0.836	0.088	0.174	-0.040	0.057
I like to spend a lot of time cooking	0.810	-0.001	0.041	-0.107	-0.006
I prefer to buy natural products such as products without preservatives	0.040	0.784	0.020	-0.096	0.099
I prefer fresh products to tinned or frozen products	0.102	0.754	0.021	-0.007	-0.082
I always try to get the best quality at the lowest price when buying food	-0.023	0.561	0.455	-0.071	0.153
I'm on the lookout for changes in the price of food items that I buy regularly	0.032	-0.037	0.792	-0.119	0.152
I like shopping for food for my household	0.301	0.085	0.559	-0.140	-0.019
I feel that eating with friends and family is an important part of my social life	0.270	0.312	0.431	0.354	-0.222
I like going to restaurants with friends and family	0.068	0.018	-0.086	0.748	0.011
At home, we regularly use ready-to-eat food items such as salads	-0.115	-0.299	0.074	0.556	0.063
I often decide what to cook at the last minute	-0.144	0.014	-0.245	0.487	0.043
My family is involved in preparing meals	-0.058	-0.133	0.072	0.079	0.696
I like to try new foods	0.356	-0.001	-0.012	0.339	0.524
I believe it is more important to choose food items for their nutritional value than for their taste	0.118	0.316	-0.054	-0.285	0.521
I like to read the label of the food I buy to understand what's in it	0.129	0.300	0.344	0.043	0.469

Items with the highest factor loadings are underlined in the table

From these 5 factors, we performed the cluster analysis to group the consumers according to their food lifestyles. We obtained the following segments (Fig. 1): i) Uninvolved: This is the largest segment, accounting for 36.8% of the total sample size (n=276). It is characterised by individuals who do not value the freshness or quality/price ratio of food, do not make active purchases or link consumption to any social act, have little sensitivity towards or interest in cuisine, prioritise consumption at home and have little interest in nutrition-related issues or innovative products. ii) Cooks: This segment represents 18.4% of the sample (n=138). It is characterised by its high level of appreciation of cuisine and by seeking food freshness and a price/quality relation. These are domestic consumers who do not resort to convenience food solutions and have no interest in the nutritional aspects of their diet, presenting no affinity for food and culinary innovation, which reflects a certain traditional profile. iii) Extradomestic consumer and convenience purchaser: The second largest segment with 28.6% of the sample total (n=214). Notable for a high level of preference in consumption outside the home and for taking into account the use of convenience products, while giving a manifest socialising component to food -related aspects. The preference for extradomestic consumption does not prevent them being interested in the purchasing process and showing a degree of interest in healthy products and cuisine. Of all the segments analysed, this one had the most innovative attitude towards food, although their concern for freshness and the quality/price ratio is minimal. iv) Not involved in cooking and rational purchaser: This is the smaller segment, represented by 16.2% of the sample (n=121), highlighted by showing least interest in cooking, which is the main characteristic. It is the segment most concerned with the purchasing process, which means they are cautious when it comes to spending their money, while demanding in terms of the product they acquire. They show very little concern for nutritional aspects or innovative foods. Consumers in this segment see freshness and the quality/price relation of food as highly important and value eating as a social act. They show little interest in consumption outside the home, granting convenience products minimum value, thus indicating a certain predisposition towards planning and traditional cooking.

The studies by Bernués, Ripoll, and Panea (2012) and Bredahl and Grunert (1997) provide empirical support for the segments found in this study. These similarities confirm the power of the FRL model to determine and characterise consumer segments according to food-related lifestyles. These similarities also confirm the FRL model's validity across different cultures (Brunsø, Scholderer, &Grunert, 2004b; Scholderer *et al.,* 2004).

Factors

	Segment 1	Segment 2	Segment 3	Segment 4
	Unconcerned	Cooks	Out-of-home consumers and convenience shoppers	Rational purchaser with little interest in cooking
Love of cooking	-0.25	0.96	0.3	-1.05
Freshness and price/quality ratio	-0.63	0.66	0.097	0.51
Active and social purchasing	-0.64	0.15	0.45	0.49
Out-of-home and convenience consumption	-0.21	-0.66	0.73	-0.06
Nutrition and innovation	0.16	-0.26	0.3	-0.6

Legend:
- Unconcerned ·········
- Cooks ----
- Out-of-home consumers and convenience shoppers ——
- Rational purchaser with little interest in cooking ·—·—·—

Pentagon axes (clockwise from top): Love of cooking · Freshness and price/quality ratio · Active and social purchasing · Nutrition and innovation · Out-of-home and convenience consumption
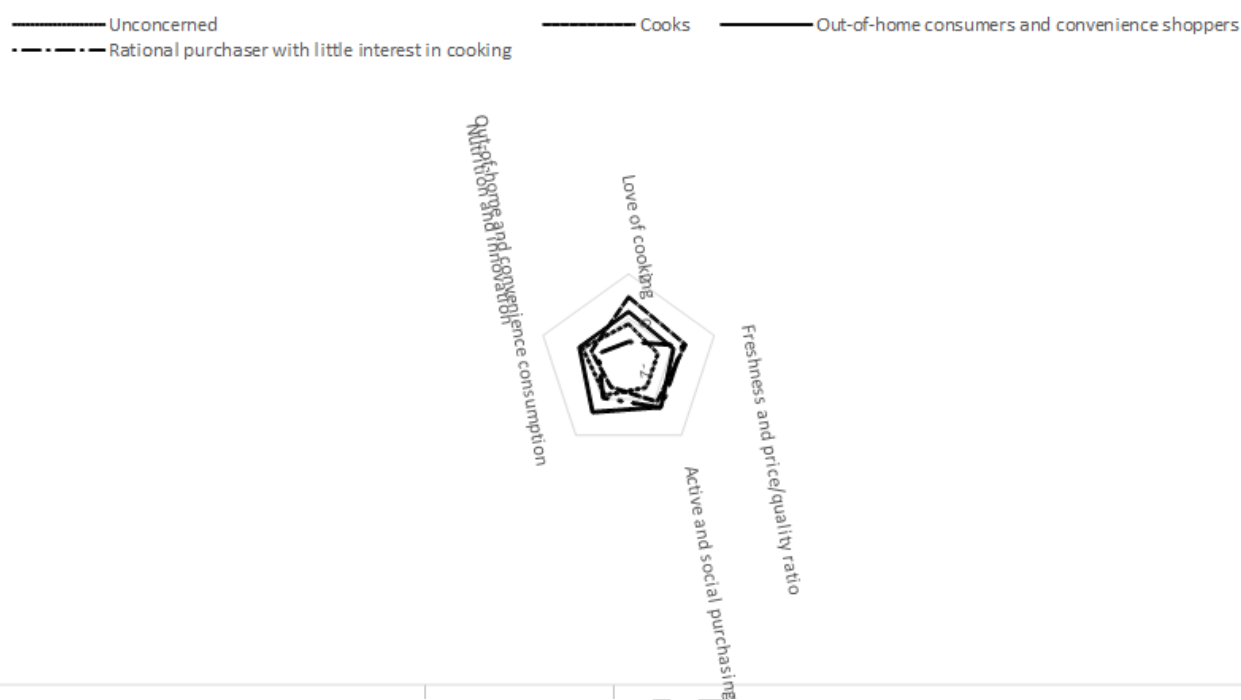
Fig. 1. Consumers' segmentation according to their food-related lifestyle

Analysing the average frequency of meat consumption in each of the 4 segments (Table 4), the only significant differences were for beef and turkey. The segments consuming beef most often were "Extradomestic consumer and convenience purchaser" (1.64) and "Uninvolved" (1.68). As the average consumption frequency revolves around 1.5, it can be said that they consume this type of meat at a lower than fortnightly frequency. As for turkey meat, the mean consumption frequency was reduced (3.52 on average in total), with the "Extradomestic consumer and convenience purchaser" (3.14) and "Cooks" (3.54) segments showing the highest consumption frequency.

Table 4. Average meat consumption frequency by FRL segments

Meat type	Uninvolved (36.8%)	Cooks (18.4%)	Extradomestic consumer and convenience purchaser (28.6%)	Not involved in cooking and Rational Purchaser (16.2%)	Total
Chicken	1.18	1.14	1.14	1.14	1.16
Beef*	1.68	1.79	1.64	2.01	1.76
Pork	2.02	1.99	1.95	2.21	2.04
Turkey*	3.59	3.54	3.14	3.90	3.52
Rabbit	3.82	3.32	3.68	3.72	3.67
Lamb	3.68	3.82	3.64	3.81	3.73

*significant differences ($p<0.05$)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

3.3. Meat consumption according to sociodemographic variables

The sample was composed of 26% men and 74% women. This difference is due to the fact that the survey was carried out with the person responsible for purchasing in the home and, as Díaz (2014) noted, this activity is currently still mostly performed by women. The meat types that

showed significant differences in the mean consumption frequency as per the "sex" variable were beef and chicken (Table 5). However, the behaviour pattern was quite different. In beef, men were the most frequent consumers of this type of meat. In contrast, women consumed chicken more often than men do.

Table 5. Average meat consumption frequency by gender

Meat type	Men (26.0%)	Women (74.0%)	Total
Chicken*	1.24	1.12	1.16
Beef*	1.57	1.81	1.76
Pork	2.04	2.03	2.04
Turkey	3.59	3.49	3.52
Rabbit	3.81	3.62	3.67
Lamb	3.58	3.77	3.73

*significant differences (p<0.05)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

The types that showed significant differences in the mean consumption frequency according to the "age" variable were chicken, pork and rabbit (Table 6). Chicken and pork were consumed most often by consumers from 35 to 54 years of age. In the remaining age intervals, consumption frequency was lower. In contrast, rabbit was consumed most frequently by consumers of 55 years and over.

Table 6. Average meat consumption frequency by age

Meat type	From 25 to 34 (14.8%)	From 35 to 44 (22.0%)	From 45 to 54 (22.0%)	From 55 to 64 (20.9%)	From 65 to 75 (20.3%)	Total
Chicken*	1.19	1.08	1.10	1.13	1.31	1.16
Beef	1.65	1.56	1.85	1.85	1.85	1.76
Pork*	2.06	1.85	1.84	2.03	2.44	2.04
Turkey	3.09	3.40	3.41	3.65	3.95	3.52
Rabbit**	3.95	4.02	3.96	3.28	3.15	3.67
Lamb	4.00	3.84	3.61	3.65	3.62	3.73

*significant differences (p<0.05), **significant differences (p<0.01)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

According to the "educational level" variable, the meat types showing significant differences in mean consumption frequency were chicken, beef, rabbit and lamb (Table 7). The lower the educational qualification levels, the lower the average beef consumption, whereas the mean consumption frequency for rabbit was higher. Regarding chicken and lamb, there was no particular behaviour pattern.

Table 7. Average meat consumption frequency by educational qualification

Meat type	No qualifications (1.1%)	Higher School (24.2%)	FP1-Secondary School (11.4%)	FP2-Secondary School (31.9%)	Higher Education (31.4%)	Total
Chicken*	1.38	1.06	1.05	1.17	1.25	1.16
Beef*	2.25	1.93	2.01	1.64	1.65	1.76

Pork	1.38	1.91	2.33	1.95	2.13	2.04
Turkey	4.00	3.58	3.39	3.37	3.66	3.52
Rabbit**	3.00	3.07	3.65	3.63	4.19	3.67
Lamb*	3.50	3.65	4.21	3.56	3.79	3.73

*significant differences (p<0.05), **significant differences (p<0.01)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

For the "social class" variable, beef and rabbit were the meats presenting significant differences in average consumption frequency (Table 8). The mean frequency of beef consumption increased the higher the social class. In contrast, the average frequency of rabbit meat consumption declined along with social class.

Table 8. Average meat consumption frequency by social class

Meat type	Low (6.8%)	Lower middle (16.8%)	Middle (34.6%)	Upper middle (19.1%)	Upper (22.7%)	Total
Chicken	1.02	1.14	1.12	1.18	1.25	1.16
Beef*	2.16	1.94	1.78	1.67	1.55	1.76
Pork	1.80	2.09	2.01	1.99	2.15	2.04
Turkey	3.43	3.71	3.41	3.39	3.67	3.52
Rabbit**	2.98	3.26	3.58	3.89	4.12	3.67
Lamb	3.49	3.70	3.83	3.68	3.69	3.73

*significant differences (p<0.05), **significant differences (p<0.01)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

The meat types that showed significant differences in the mean frequency for the "number of people in the home" variable were chicken, beef, pork and rabbit (Table 9). Chicken, pork and rabbit presented a higher average consumption frequency when the number of people in the household was higher. This may be because they are the lowest-priced meats (Montero, Escribá, & Buitrago, 2015), thus making them more economical meats if the number of diners is usually high.

Table 9. Average meat consumption frequency by number of people in the home

Meat type	Single (6.2%)	Two (30.3%)	Three (22.0%)	Four (27.4%)	Five (9.7%)	More than 5 (4.4%)	Total
Chicken**	1.39	1.20	1.23	1.07	1.00	1.00	1.16
Beef**	2.26	1.85	1.74	1.52	1.96	1.58	1.76
Pork**	2.57	2.34	2.10	1.69	1.82	1.55	2.04
Turkey	3.54	3.69	3.37	3.25	4.11	3.52	3.52
Rabbit**	4.02	3.37	3.98	3.80	3.65	2.88	3.67
Lamb	4.24	3.65	3.95	3.53	3.72	3.67	3.73

*significant differences (p<0.05), **significant differences (p<0.01)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

The meat types that showed significant differences in the mean frequency for the "presence of children younger than 18 years in the home" variable were chicken, pork and rabbit (Table 10).

Chicken and pork showed a higher average consumption frequency when there were minors in the household, whereas the opposite held true for rabbit meat.

Table 10. Average meat consumption frequency by presence of minors less than 18 yrs old in the home

Meat type	Yes (31.9%)	No (68.1%)	Total
Chicken*	1.06	1.18	1.16
Beef	1.65	1.76	1.76
Pork**	1.73	2.13	2.04
Turkey	3.33	3.61	3.52
Rabbit*	3.91	3.52	3.67
Lamb	3.86	3.62	3.73

*significant differences ($p<0.05$), **significant differences ($p<0.01$)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

According to the "geographical area" variable, the types of meat that showed significant differences in mean consumption frequency were chicken, beef, rabbit and lamb (Table 11). The highest average chicken consumption frequencies were found in the Northeast, East, Madrid and North-Central regions. The areas with the highest average beef consumption were Madrid, Northwest, North-Central and Barcelona. Rabbit is consumed most often in the East, North-Central, Barcelona and Northeast. Finally, lamb was consumed more frequently in the East, Northeast, Central and Northwest. These differences may therefore be related to the consumer habits and traditional recipes of these geographic areas.

Table 11. Average meat consumption frequency by geographical area

Meat type	North East (13.0%)	East (13.2%)	South (12.2%)	Central (13.4%)	North West (12.8%)	North-Central (11.9%)	Madrid (9.5%)	Barcelona (14.0%)	Total
Chicken*	1.04	1.07	1.25	1.18	1.34	1.11	1.08	1.16	1.16
Beef**	1.59	2.20	2.59	1.94	1.39	1.46	1.24	1.55	1.76
Pork	1.73	1.87	2.12	1.94	2.20	2.16	2.18	2.14	2.04
Turkey	3.62	3.45	3.43	3.72	3.88	3.27	3.49	3.29	3.52
Rabbit**	3.62	2.78	4.29	3.89	3.67	3.48	4.17	3.61	3.67
Lamb**	3.16	3.10	4.68	3.38	3.72	4.12	4.14	3.73	3.73

*significant differences ($p<0.05$), **significant differences ($p<0.01$)
Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

For the "habitual residence" variable, beef and pork were the meats types presenting significant differences in average consumption frequency (Table 12). The highest mean beef consumption frequency was found in populations of more than 100,001 inhabitants, i.e. in larger cities. As for pork, the average consumption frequency was higher in populations of fewer than 50,000 inhabitants, i.e. in smaller towns. Again, differences may be due to the consumption habits typical to these populations.

Table 12. Average meat consumption frequency by residential dwelling

Meat type	< 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

Chicken	1.07	1.21	1.17	1.14	1.19	1.16
Beef*	2.05	1.75	1.82	1.57	1.68	1.76
Pork*	1.88	1.86	2.03	2.32	2.07	2.04
Turkey	3.65	3.45	3.79	3.27	3.64	3.52
Rabbit	3.76	3.48	3.70	3.59	3.92	3.67
Lamb	3.75	3.55	3.72	3.75	3.93	3.73

*significant differences ($p<0.05$)

Scale: 1 = once a week; 2 = once a fortnight; 3 = once a month; 4 = once every 2 or 3 months; 5 = once a year; 6 = no consumption.

3.4. Consumer profile for each type of fresh meat

The chicken meat consumer profile was obtained exclusively from analysis by sociodemographic variables. Average chicken consumption was higher in women aged 35 to 64, in people with primary and secondary education, in households with a large number of people and with children under 18. This may be because chicken is white meat and women perceive it as a more wholesome option when it comes to keeping fit and healthy. As for the "sex" variable, our findings differed from those of Yen, Lin and Davis (2008), who reported that men consume more poultry than women. Regarding the "age" variable, our outcomes coincided with those of Yen, Lin and Davis (2008), who demonstrated that consumption in younger individuals is higher than in people over 61 years of age. In geographical terms, the average consumption frequency of chicken was higher in the Northeast, East, North-Central and Madrid regions.

Beef, despite not being the most frequently consumed, was the only type whose average consumption frequency was significantly different in both the FRL and sociodemographic variables analyses. In the FRL analysis, the segments consuming this meat type with the highest average frequency were "Extradomestic consumer and convenience purchaser" and "Uninvolved". Despite representing completely different food lifestyles, the sociodemographic profile of the segments coincides with the profiles obtained from the analysis by sociodemographic variables. In short, the average beef consumption frequency was higher in men, in people with higher levels of educational qualification, in upper social strata, in homes with a large number of people and in large cities. Geographically, beef consumption was mainly located in Madrid, Northwest, North Central and Barcelona. This location is understandable, as Madrid and Barcelona are the largest cities in Spain. Rimal's results (2002) for American consumers in their preferences for meatless meals and, specifically, meals with less red meat are totally different in terms of "educational level" and "social class", while coinciding for the variable "number of people in the home". As for the "sex" variable, our results do coincide with those reported by Yen, Lin and Davis (2008). Nevertheless, these results are in line with those of Latvala *et al.* (2012), who found that as their educational level increased, men's meat consumption also rose, whereas women's decreased.

Analysis by sociodemographic variables was the only source of information to determine the pork consumer profile. The average pork consumption of the oldest group (over 65 years of age) was lower than that of the younger groups (Yen, Lin, &Davis, 2008). A higher number of people in the home and the presence of children under 18 also increased the average consumption frequency of this type of meat. Finally, the average pork consumption frequency was higher in populations with fewer inhabitants. These results are consistent with those of Verbeke *et al.* (2010), which identified consumer segments based on the frequency and variety

of pork consumption. The ''high variety medium frequency" segment includes families and the ''high variety high frequency" segment predominantly lives in rural areas in northern Europe.

Notably, the average consumption frequency of turkey meat was only significantly different in the FRL analysis and was not shown to be significant in the sociodemographic variables analysis. Therefore, one could say that this type of meat is associated with specific types of food lifestyles, specifically with the "Extradomestic consumer and convenience purchaser" and "Cooks" segments. This statement is also sustained by the differences in the sociodemographic profile of both segments. The "Extradomestic consumer and convenience purchaser" is mainly represented by subjects aged from 25 to 34 (31%) and belonging to upper-middle and middle-class social strata (51.1%). The "Cooks" segment consisted of people of a mature age (over 45) and mainly middle class (43%).

Commercially, rabbit meat is similarly positioned to turkey meat, both linked with lean meats, low-cholesterol and suitable for those wishing to maintain a wholesome and healthy diet (Murcia, 2014). Nevertheless, their consumer profiles were wholly different. The average consumption frequency of rabbit meat was not significant in the FRL analysis. However, it was significant when analysed by sociodemographic variables. The average consumption frequency of rabbit meat increased in the older subjects (over 55), in people with no education or only primary studies, in lower social classes (low and lower middle), in households with two or more than 5 members, and in homes without children under 18. Geographically, its consumption was located in the East and North-Central regions.

Finally, the average frequency of lamb consumption was the one that appears statistically significant least in all analyses. Moreover, lamb was also consumed less frequently among all the meats analysed. It only appeared with the sociodemographic variables "educational level" and "geographical area". Even so, in the former variable it did not follow a distinct pattern, although its consumption was arguably higher at lower educational levels (no qualifications, primary and secondary school /FP2). Bernués, Ripoll, and Panea (2012) also found that educational qualifications and place of residence are more related to convenience orientation of lamb in a specific region of Spain (Aragón). From this it may be deduced that these two variables may be important in this type of meat.

4. Conclusions

Fresh meat has a very low degree of differentiation compared to other food products. Any kind of improved or otherwise differentiated meat quality therefore requires new ways to signal the quality to the consumer. Grunert, Bredahl and Brunsø (2004) proposed differentiation measures such as branding, eating quality, health, convenience and process characteristics. Before approaching any of these, it is important to first understand the consumer (Resurreccion, 2013).

One way to understand consumers is through knowledge of their profile. In this research, we used two information sources. The first is the Food-Related Lifestyle (FRL) instrument and the second consists of analysis by sociodemographic variables. On this basis, we were better able to define the marketing-mix variables (product, price, communication and distribution) for existing consumers and think of new ways to attract them (designing new products, price variations, new messages and communication channels, new distribution channels, …) for other consumer typologies not included in the current profile.

Based on the results of this research, we can state that there is no general consumer behaviour pattern for all meats, as each type of meat has its own consumer profile. Therefore, the marketing mix has to be adapted to each product and each consumer.

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HIGHLIGHTS:

- The variable studied is the average consumption frequency of different meat types.
- Beef and turkey meats are associated to the consumers' food-related lifestyle.
- Chicken, pork, rabbit and lamb meats depend only on sociodemographic variables.
- As a result, a different consumer profile is obtained for every type of meat.
- Therefore, the marketing mix should be adapted to each type of meat and consumer.