

CONSUMER SEGMENTATION BASED ON FOOD-RELATED LIFESTYLES AND ANALYSIS OF RABBIT MEAT CONSUMPTION

BUITRAGO-VERA J., ESCRIBÁ-PÉREZ C., BAVIERA-PUIG A., MONTERO-VICENTE L.

Department of Economics and Social Sciences, Universitat Politècnica de València, Camino de Vera s/n, VALENCIA, 46022, Spain.

Abstract: Market segmentation divides the market into small groups of consumers who share similar characteristics. As all consumers within the same group have a common profile, marketing strategies can be adapted to target a specific type of consumer. Owing to the rapid changes in today's society, consumer lifestyle has become the ideal criterion for market segmentation. In this study, we employed the food-related lifestyle model, which scholars have shown to be suitable and valid in several countries. Using data from a survey (with 3.53% error), we segmented the Spanish food market based on consumers' food-related lifestyles. For each segment, we identified the consumer profile and analysed consumers' consumption of rabbit meat. Factor analysis and cluster analysis yielded 4 segments: (i) 'Unconcerned' (36.8% of the sample) mainly consists of male consumers. Consumers in this segment value neither the freshness nor the price/quality ratio of their food items and consume rabbit meat rarely (39.4%) or sporadically (29.3%). (ii) 'Cooks' (18.4%) predominantly consists of middle-aged women. Consumers in this segment are highly demanding and critical of the quality of food products. They like cooking and are regular consumers of rabbit meat (40.6%). (iii) 'Out-of-home consumers and convenience shoppers' (28.6%) mostly consists of consumers aged between 25 and 34 y old and contains a large proportion of upper-class consumers. Consumers in this segment prefer to eat out and consume convenience products. This segment has the second highest percentage of regular consumers of rabbit meat (36.9%). The segment also has the second highest percentage of consumers who rarely or never eat rabbit meat (43.9%). (iv) 'Rational purchaser with little interest in cooking' (16.2%) has the highest proportion of consumers aged 55 to 74 y old. Consumers in this segment have the least interest in cooking, the most interest in the purchasing process, and the lowest consumption of rabbit meat (51.1% consume little or no rabbit meat).

Key Words: market segmentation, food-related lifestyle, rabbit meat, marketing strategy, consumer profile.

INTRODUCTION

Market segmentation is the process of dividing the total market into smaller groups of buyers with distinct needs, characteristics or behaviour. Each group or segment may conceivably be singled out for targeting by a specific marketing strategy (Kotler and Armstrong, 2015). Marketers have developed different ways of identifying consumers' characteristics, dividing consumers into groups and analysing consumer behaviour towards a certain product. Socioeconomic and demographic features such as age, gender, standard of living and education have been widely used to segment markets (Plummer, 1974; Kavak and Gumusluoglu, 2006). However, the rapid rate of change in Western economies, the economic crisis and the massive rise in the popularity of Information and communication technologies mean that the socioeconomic and demographic characteristics traditionally used to explain consumer behaviour are no longer effective (González, 2000). Thus, psychographic factors such as values and lifestyle have proved more suitable for identifying consumer segments (Fraj and Martínez, 2004). Psychographic profiles can be used to describe individuals' characteristics and responses to the environment. Consequently, psychographic segmentation matches up consumers according to lifestyle, personality and values (Law, 2009; Kotler and Keller, 2015).

Correspondence: A. Baviera-Puig, ambapui@upv.es. Received *October 2015* - Accepted *December 2015*.

doi:10.4995/wrs.2016.4229

Brunso *et al.* (2004a) showed that food-related lifestyles represent a system of cognitive categories, patterns and networks that link food-related behaviours with values. Bredahl and Grunert (1997) point out that lifestyles encompass subjective perceptions –stemming from consumer experience and information about the product and affecting consumer values and the objective procedures that the consumer uses to obtain, consume or reject foods– in other words, their food-related behaviour. Lifestyles therefore tap into the mental schema that govern consumer behaviour and reach beyond the actions of individual behaviour.

The food-related lifestyle (FRL) model (Grunert *et al.*, 1993) provides information on decisive factors in consumers' perceptions of value. Here, the term consumers refers to end users –that is to say, the consumers who form the final link in the food value chain and who use and consume food items. The FRL model explains consumer behaviour towards the choice of food, examining individual food-related lifestyles. In the FRL, lifestyles are conceived as a system of intermediate constructs that link personal values to behaviours. Scholderer *et al.* (2004) argue that consumers' cognitive structures are reflected by 5 dimensions. (i) 'Ways of shopping' assesses how the consumer purchases, what they consider when deciding which products to purchase, whether the purchases are reflexive or impulsive, what type of purchasing experience they have, and how the consumer plans when shopping. (ii) 'Cooking methods' assesses how consumers prepare their food, whether the consumer likes cooking, and whether cooking is a social or solitary activity for them. (iii) 'Quality aspects' assesses the intrinsic and extrinsic quality attributes the consumer looks for in food items. For instance, they may seek food that is healthy, organic, tasty or fresh. (iv) 'Consumption situations' assesses the circumstances in which the consumer eats. For example, they may eat at work, snack between meals, eat alone or eat with others. (v) 'Buying motives' assesses the motives that stimulate the consumer when choosing food items. For instance: what are the emotional consequences of cooking and eating; how does eating form a part of the consumer's social relations; and what is the consumer's tendency to discover new foods vs. the security provided by familiar food?

The FRL model comprises a questionnaire with 69 items to measure 5 dimensions on a 7-point Likert scale ranging from 'completely disagree' (1) to 'completely agree' (7) (Scholderer *et al.*, 2004). Researchers have tested and validated the FRL model in numerous countries (Buckley *et al.*, 2007; Dimech *et al.*, 2011; Grunert *et al.*, 2011; Nie and Zepeda, 2011; Rong-Da, 2014), confirming its suitability and validity as a useful tool for conducting research into consumers' food-related lifestyles. Notably, Bernués *et al.* (2012) explained the drop in Spaniards' lamb meat consumption using the FRL model to segment the population of Aragón based on qualitative attributes of lamb meat and consumer attitudes and interest in convenience products. To adapt to each context, the FRL model may comprise a different number of items, with each dimension characterised using factors that make it possible to describe consumers' lifestyles. Bernués *et al.* (2012) used 18 dichotomous food-related lifestyle items that cover different ways of preparing food, consumption situations and purchasing behaviour. Schnettler *et al.* (2012) chose 26 FRL items measured on a 7-point Likert scale.

The aim of the present study was to use the FRL model to segment Spanish consumers based on food-related lifestyles and identify the aspects that determine consumer behaviour towards rabbit meat. Marketers can use this information to tailor marketing strategies (González-Redondo and Sánchez-Martínez, 2014) to consumer preferences (McNitt *et al.*, 2003; International Rabbit Reproduction Group, 2005), with the aim of improving commercial processes in the rabbit farming industry.

MATERIAL AND METHODS

Study area and sample selection

The interviews took place in mainland Spain divided into Nielsen areas (Santesmases, 1996) (Table 1). We selected 25- to 74-year-old consumers who did the household shopping and consumed meat at least once every 2 mo. The sample comprised 800 respondents, yielding 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) are considered 0.5. The error was acceptable, falling within the admissible range in social research, as per Cea (2010). We used random non-proportional stratification with simple allocation. We subsequently weighted the sample to redress proportionality for the data analysis. This type of sampling had certain advantages in our study. First, it guaranteed that the sample

Table 1: Sampling size and weight for each area.

Area	Weight (%)	Sample (n)	Error ^a (%)
Area I: Northeast	7.8	100	10
Area II: East coast	13.7	100	10
Area III: South	22.9	100	10
Area IV: Centre	8.2	100	10
Area V: Northwest	11.5	100	10
Area VI: Centre north	10.3	100	10
Area VII: Madrid metropolitan area	13.2	100	10
Area VIII: Barcelona metropolitan area	12.4	100	10
Total	100	800	3.53

^aConfidence level 95.5% (2 sigma).

covered different groups of consumers within the population, enabling us to study variability among these groups. Second, it helped us organise the fieldwork (Cea, 2010).

Data collection and variables

The fieldwork took place in the first 2 wk of June 2014. We collected the data via telephone interviews, selecting the telephone numbers at random from a public telephone directory. The questionnaire consisted of 24 questions, each comprising several items (55 variables in total). Items were divided into 9 groups. The questionnaire included open-ended and closed-ended questions. Measurement scales differed for the closed-ended questions (Grande and Abascal, 2005). As stated in the Introduction, the FRL model may comprise a different number of items in order to adapt to each context. In our study, the question on consumers' food-related lifestyle had 16 items measured on a 5-point Likert scale ranging from 'strongly disagree' (1) to 'strongly agree' (5), with a middle point of 'neither agree nor disagree' (3). We selected 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 applying the FRL tool. The full questionnaire is provided as a supplementary file.

After collecting the data, we identified 51 cases with missing data in the lifestyle question block. As fewer than 10% of responses had missing values (Malhotra, 2008), we assumed that these cases presented random values and so removed them, thereby leaving 749 valid cases.

Statistical analysis

During the telephone interviews, we created a data set using response codes. This data set was transferred to a file compatible with IBM SPSS Statistics 20 (SPSS, 2011), which we used for the data analysis. The statistical data analysis techniques used in this study were as follows: (i) univariate analysis describing the data using basic statistics and frequency distributions; (ii) bivariate analysis (specifically, correlation tests and cross tabulations) for characterisation of the segments following Sánchez and Sanjuán (2002); (iii) multivariate analysis, used to reduce the 16 items related to the FRL block using factor analysis and yield clusters using cluster analysis. The results of the cluster analysis are the market segments. Examples of this methodology can be found in Bernués *et al.* (2003), Brunner and Siegrist (2011) and Dimech *et al.* (2011).

The open-ended questions were analysed gathering the different options and calculating their percentages. Only those answers with a percentage greater than 5% in the total sample were considered. Social class was obtained by crossing the education level variables with the profession variable, as Alvira (2011) proposes.

RESULTS AND DISCUSSION

Analysis and reduction of the number of items according to food-related lifestyles

We first examined descriptive statistics (Table 2). The item 'I feel that eating with friends and family is an important part of my social life' had the greatest percentage for "Strongly agree" (66.45%). This finding is consistent with

Table 2: Descriptive statistics for the items measuring food-related lifestyle.

Item	Likert scale	%
I like to read the label of the food I buy to understand what's in it	Strongly disagree	2.92
	Disagree	6.78
	Neither agree nor disagree	12.89
	Agree	36.04
	Strongly agree	41.37
I like shopping for food for my household	Strongly disagree	2.20
	Disagree	3.74
	Neither agree nor disagree	11.26
	Agree	42.90
	Strongly agree	39.90
I'm on the lookout for changes in the price of food items that I buy regularly	Strongly disagree	6.16
	Disagree	11.41
	Neither agree nor disagree	17.38
	Agree	36.49
	Strongly agree	28.56
I prefer to buy natural products such as products without preservatives	Strongly disagree	1.07
	Disagree	2.18
	Neither agree nor disagree	10.96
	Agree	35.13
	Strongly agree	50.66
I always try to get the best quality at the lowest price when buying food	Strongly disagree	0.89
	Disagree	1.62
	Neither agree nor disagree	3.54
	Agree	30.80
	Strongly agree	63.15
I like to try new foods	Strongly disagree	6.00
	Disagree	15.28
	Neither agree nor disagree	15.26
	Agree	33.65
	Strongly agree	29.81
I believe it is more important to choose food items for their nutritional value than for their taste	Strongly disagree	6.18
	Disagree	8.44
	Neither agree nor disagree	35.07
	Agree	32.73
	Strongly agree	17.59
I prefer fresh products to tinned or frozen products	Strongly disagree	0.69
	Disagree	0.82
	Neither agree nor disagree	8.32
	Agree	27.33
	Strongly agree	62.83
I like to spend a lot of time cooking	Strongly disagree	11.35
	Disagree	17.92
	Neither agree nor disagree	18.96
	Agree	24.01
	Strongly agree	27.76

Continued on next page

Table 2: Descriptive statistics for the items measuring food-related lifestyle.

Continued from previous page

Item	Likert scale	%
I like to cook and experiment with new recipes	Strongly disagree	10.51
	Disagree	13.32
	Neither agree nor disagree	13.69
	Agree	31.80
	Strongly agree	30.69
At home, we regularly use ready-to-eat food items such as salads	Strongly disagree	31.21
	Disagree	19.70
	Neither agree nor disagree	14.81
	Agree	26.25
	Strongly agree	8.03
My family is involved in preparing meals	Strongly disagree	22.47
	Disagree	16.87
	Neither agree nor disagree	15.26
	Agree	32.24
	Strongly agree	13.17
I often decide what to cook at the last minute	Strongly disagree	34.21
	Disagree	38.21
	Neither agree nor disagree	12.33
	Agree	11.06
	Strongly agree	4.19
I like going to restaurants with friends and family	Strongly disagree	7.33
	Disagree	8.19
	Neither agree nor disagree	13.33
	Agree	32.44
	Strongly agree	38.72
I find cooking gratifying	Strongly disagree	8.37
	Disagree	11.67
	Neither agree nor disagree	16.84
	Agree	33.29
	Strongly agree	29.84
I feel that eating with friends and family is an important part of my social life	Strongly disagree	0.11
	Disagree	0.79
	Neither agree nor disagree	3.14
	Agree	29.51
	Strongly agree	66.45

findings reported by Díaz (2014) in reference to Spaniards' views on eating as a social activity. The next greatest percentage for "Strongly agree" (63.15%) was for the item, 'I always try to get the best quality at the lowest price when buying food'. This score confirms the recent consumer trend towards more intelligent, efficient purchasing whereby consumers seek to get the best value from the products they buy (Pasamón, 2010). The lowest percentage for "Strongly agree" (4.19%) was for the item 'I often decide what to cook at the last minute'. This item represents the antithesis of the item regarding food shopping and cooking as well-planned and efficient activities. Hence, this low value reinforces the previous point regarding the shift towards intelligent, efficient purchasing.

Next, we performed factor analysis to reduce these 16 items from the block of questions on lifestyles (FRL) while retaining the most information possible and enabling the subsequent cluster analysis (Sánchez and Sanjuán, 2002; Bernués *et al.*, 2003; Brunner and Siegrist, 2011; Dimech *et al.*, 2011). We used principal component analysis, considering eigenvalues greater than 1. We applied varimax rotation to improve the interpretation of factors yielded by the analysis. The tests for goodness-of-fit were as follows: (i) 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); (ii) Bartlett's test of sphericity demonstrated the adequacy of the factor analysis, yielding a *P*-value of 0.000 at a significance level of 0.05. This result led to the rejection of the null hypothesis of non-correlation, thereby justifying the application of factor analysis (Uriel and Aldás, 2005). The factor analysis yielded 5 factors that explained 55.37% of the total variance. We accepted this result because, in the social sciences, a value of 60% –or even less– in the level of explanation of variance is considered acceptable (Hair *et al.*, 2008).

The factor analysis yielded the following five factors (Table 3): (i) 'Love of cooking', (ii) 'Freshness and price/quality ratio', (iii) 'Active and social purchasing', (iv) 'Out-of-home and convenience consumption', (v) 'Nutrition and innovation'.

Obtaining and describing the market segments

To estimate the number of segments, we performed cluster analysis using hierarchical procedures. We used the squared Euclidean distance to measure the similarity between objects and Ward's method to aggregate objects to yield the clusters. The process yielded 4 segments, whose factor scores appear in Table 4. (i) Segment 1 ('Unconcerned') is the largest segment, comprising 36.8% of the sample. This segment is characterised by consumers who value neither the freshness nor the price/quality ratio of the food they buy. Furthermore, these consumers neither shop actively nor

Table 3: Factor analysis: Matrix of rotated components.

Variables	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*

*Variables with the highest factor loadings.

view eating as a social act. (ii) Segment 2 ('Cooks') comprises 18.4% of the sample. This segment is characterised by high positive scores in the factors 'Love of cooking' and 'Freshness and price/quality ratio' and a high negative score in the factor 'Out-of-home and convenience consumption'. (iii) Segment 3 ('Out-of-home consumers and convenience shoppers') is the second largest segment, comprising 28.6% of the sample. This segment is characterised by a strong preference for out-of-home consumption and convenience products (i.e., ready-to-eat foods and ready meals) (Monteiro *et al.*, 2011; De Boer *et al.*, 2003; Resa, 2014). Consumers in this segment express the view that food has a major social component. (iv) Segment 4 ('Rational purchaser with little interest in cooking') is the smallest segment, comprising 16.2% of the sample. This segment comprises consumers whose main characteristic is their lack of interest in cooking. This segment contains the consumers most concerned with the shopping process, which means that they are careful when spending their money yet highly demanding in what they purchase.

The studies by Bredahl and Grunert (1997) and Bernués *et al.* (2012) provide empirical support for the segments found in this study. Although the aims of the 3 studies are different, there are similarities among the segments obtained. On one side, Bredahl and Grunert (1997) found in Spain the following 5 segments: Adventurous consumers, Conservative consumers, Uninvolved consumers, Rational consumers and Enthusiastic consumers. Our 'Unconcerned' segment shares certain attributes with the Adventurous segment. The segment described as 'Cooks' has interesting similarities with the segment described as Conservatives. 'Out-of-home consumers and convenience shoppers' segment share certain attributes with Uninvolved segment. Finally, the segment 'Rational purchaser with little interest in cooking' shares certain characteristics with Enthusiastic and Rational segments. On the other side, Bernués *et al.* (2012) found in Aragón (Spain) 4 consumer profiles: Traditional, Uninvolved, Adventurous and Careless. Our 'Unconcerned' segment is very similar to Careless segment. 'Cooks' could be equivalent to Traditional. 'Out-of-home consumers and convenience shoppers' segment has similarities with Adventurous. Finally, the segment 'Rational purchaser with little interest in cooking' could match to Uninvolved segment. 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 (Brunso *et al.*, 2004b; Scholderer *et al.*, 2004), even when applying simplified versions of the model.

Characterisation of the segments

We determined the consumer profile of each of the four segments using bivariate analysis, specifically cross tabulations and correlation tests (Tables 5-10) (Sánchez and Sanjuán, 2002).

Unconcerned: This segment consists mainly of young (26.8%) and middle-aged consumers (29.6%), and has the highest proportion of male consumers (37.8%) in any one segment. The most prevalent social class in this segment is the middle class (29.2% of consumers in this segment). This segment is mainly located in the East coast (20.7%) and in the Northeast (16.4%) of Spain. 'Unconcerned' consumers do not report a specific place where they tend to buy fresh meat, although the segment contains the highest proportion of consumers who purchase rabbit meat from meat counters in supermarkets and hypermarkets (36.9%). As in all segments, consumers in this segment highlight 'The appearance of the meat' as the most important buying motive; 86.6% of 'Unconcerned' consumers choose

Table 4: Factor loadings of the segments.

Factor	'Unconcerned'	'Cooks'	'Out-of-home consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'
Love of cooking	-0.25 ^a	0.96 ^b	0.30 ^c	-1.05 ^d
Freshness and price/quality ratio	-0.63 ^a	0.66 ^c	0.10 ^b	0.51 ^b
Active and social purchasing	-0.64 ^a	0.15 ^b	0.45 ^c	0.49 ^c
Out-of-home and convenience consumption	-0.21 ^a	-0.66 ^b	0.73 ^c	-0.06 ^a
Nutrition and innovation	0.16 ^a	-0.26 ^b	0.30 ^a	-0.60 ^c
Total	276	138	214	121
%	36.8%	18.4%	28.6%	16.2%

The values marked by letters were significantly different at $P < 0.05$ from other values in the same row, according to the two-tailed test of equal means.

Table 5: Sociodemographic characteristics (%).

Variables	'Unconcerned'	'Cooks'	'Out-of-home consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'	Total
Age*					
25-34 y old	26.8	14.1	31.0	10.2	23.0
35-44 y old	29.6	20.6	28.9	20.5	26.3
45-54 y old	21.6	21.3	25.7	21.6	22.7
55-64 y old	12.7	23.2	10.9	26.4	16.3
65-74 y old	9.3	20.8	3.5	21.3	11.7
Sex*					
Male	37.8	14.6	21.5	16.5	25.4
Female	62.2	85.4	78.5	83.5	74.6
Social class*					
Low	8.8	7.5	3.1	4.7	6.3
Lower middle	15.8	15.6	6.0	21.2	13.9
Middle	29.2	43.0	39.8	42.4	36.8
Upper middle	26.4	11.7	23.3	13.1	20.6
Upper	19.8	22.2	27.8	18.6	22.4
Geographical area**					
Northeast	16.4	11.4	14.8	15.3	14.8
East coast	20.7	15.7	10.5	14.1	15.8
South	14.9	34.7	22.7	22.8	22.0
Centre	9.1	11.4	8.9	14.7	10.4
Northwest	11.3	9.5	7.1	5.8	8.9
Centre north	10.1	4.9	9.3	12.7	9.4
Madrid metropolitan area	11.0	9.0	17.5	5.0	11.5
Barcelona metropolitan area	6.5	3.4	9.2	9.6	7.2

*Statistically significant at 99% confidence level.

**Statistically significant at 95% confidence level.

this as the most important factor when buying rabbit meat (52.7% for 'Quite important' and 33.9% for 'Extremely important'). Consumers in this segment consider 'Price' more important than consumers in other segments (57.9% for 'Quite important' and 14.7% for 'Extremely important') do. Consumers in this segment regularly purchase beef (84.9% purchase beef at least once every 2 wk) and purchase rabbit meat sporadically (17.0% purchase rabbit meat once a month and 12.3% once every 2 or 3 mo) or rarely (39.4% purchase rabbit meat at most once a year). As in all segments, consumers in this segment find rabbit meat tasty (72.4%). The percentage of consumers in this segment who consider rabbit meat to be healthy (35.9%) and cheap (11.0%) is greater than the percentage of consumers in other segments who feel the same. According to 'Unconcerned' consumers, the main reason for not consuming rabbit meat is being unaccustomed to doing so (28.3%) and disliking the taste (26.7%). The data on willingness to purchase new offers of rabbit meat reveal indifference from consumers in this segment.

Cooks: This segment has the second largest proportion of consumers aged between 55 and 64 y old (23.2%) and between 65 and 74 y (20.8%) –the 2 oldest age groups in this study. 'Cooks' has the smallest proportion of men of any group (14.6%). These results confirm findings that women tend to handle the cooking at home (Díaz, 2014) and tend to enjoy cooking (Adams *et al.*, 2015). Most consumers in this segment are middle class (43%). This is the highest percentage of middle class consumers in any segment. 'Cooks' can be found in the South (34.7%) and on the East coast (15.7%). Half of the consumers in this segment (51.8%) prefer to purchase fresh meat from neighbourhood butchers, which is also the preferred place for purchasing rabbit meat among consumers in this segment (42.4%). Three quarters of 'Cooks' (76.3%) purchase rabbit meat 'Sliced at the counter' and only 10.6% purchase it 'Ready packaged'. Therefore, members from this segment opt for a traditional model of food shopping, favouring freshly sliced meat. This creates an impression that the meat is of a high quality, which is consistent with these consumers'

Table 6: Purchasing habits (%).

Variables	'Unconcerned'	'Cooks'	'Out-of-home consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'	Total
Usual place of purchase of fresh meat**					
Neighbourhood butchers	43.8	51.8	41.4	51.7	45.9
Food markets	12.1	14.7	10.9	6.8	11.4
Supermarket/hypermarket meat counters	42.9	32.2	46.7	40.7	41.7
Farms	0.0	1.3	0.1	0.2	0.3
We raise them	1.2	0.0	0.0	0.0	0.4
Slaughterhouses	0.0	0.0	0.3	0.6	0.2
No fixed place	0.0	0.0	0.6	0.0	0.2
Usual place of purchase of rabbit meat**					
Neighbourhood butchers	47.2	42.4	42.9	58.1	46.6
Food markets	9.5	14.3	15.4	1.7	11.0
Supermarket/hypermarket meat counters	36.9	35.9	31.8	22.7	33.3
Farms	0.6	6.1	3.5	7.8	3.5
We raise rabbits	2.3	1.3	0.0	1.0	1.3
Slaughterhouses	0.0	0.0	0.5	0.0	0.1
No fixed place	0.0	0.0	0.6	0.0	0.2
Hunting	2.0	0.0	2.3	8.3	2.6
It is a present/We eat it with relatives	0.6	0.0	2.6	0.0	0.9
Others	0.7	0.0	0.0	0.4	0.3
Don't know/No response	0.3	0.0	0.3	0.0	0.2
Purchase format of rabbit meat**					
Sliced at the counter	72.0	76.3	62.5	67.7	69.6
Ready packaged	17.9	10.6	18.4	12.8	15.9
Whole	5.7	8.5	9.3	14.8	8.5
No preferred format	0.8	1.3	5.9	0.0	2.2
We raise them/Hunting	1.5	0.0	0.0	1.8	0.8
Pre-prepared, ready to re-heat	0.5	0.0	1.3	0.0	0.6
Don't know/No response	0.9	3.4	2.6	3.0	2.1
Others	0.7	0.0	0.0	0.0	0.3

*Statistically significant at 99% confidence level.

**Statistically significant at 95% confidence level.

culinary demands. Consumers from this segment consider 'The appearance of the meat' (13.5% for 'Quite important' and 82.4% for 'Extremely important') and the 'The butcher's advice' (23.1% for 'Quite important' and 46.5% for 'Extremely important') to be the most important factors when purchasing rabbit meat. Notably, this segment has the largest proportion of regular consumers of rabbit meat, with 40.6% (24.4% for 'Once a week or more' and 16.2% for 'Once every 15 d') –5 percentage points higher than the mean consumption across all groups. Furthermore, consumers from this segment know more about the different ways of preparing rabbit meat than consumers in other segments do. Consistent with results for other segments, 68.3% of 'Cooks' enjoy rabbit meat because it tastes good. Conversely, the main reason why 'Cooks' do not consume rabbit meat is that they dislike its taste (32.5%). Of all new products proposed in the questionnaire, 'Premium rabbit' (higher quality, fed for a longer period –the rabbit has more meat on the bone) and 'Rabbits with the head removed' receive higher scores from consumers in this segment than from consumers in any other segment for the statement 'Extremely willing' (31.0 and 18.3%, respectively). Hence, consumers in this segment are highly demanding and critical of the quality of the products they buy.

Table 7: Purchasing criteria of rabbit meat (%).

Variables	'Unconcerned'	'Cooks'	'Out-of-home consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'	Total
The appearance of the meat*					
Completely unimportant	2.0	0.9	1.3	2.0	1.6
Quite unimportant	2.4	0.0	1.3	1.0	1.4
Somewhat important	9.0	1.9	1.9	0.4	4.4
Quite important	52.7	13.5	24.4	23.8	33.1
Extremely important	33.9	82.4	69.4	72.8	58.7
Don't know/No response	0.0	1.3	1.6	0.0	0.7
Price*					
Completely unimportant	8.0	9.0	6.6	9.4	8.0
Quite unimportant	6.2	8.2	6.6	6.9	6.8
Somewhat important	11.0	25.7	16.3	10.5	15.3
Quite important	57.9	29.6	27.4	26.6	39.5
Extremely important	14.7	26.2	40.5	45.5	28.4
Don't know/No response	2.3	1.3	2.6	1.0	2.0
The butcher's advice*					
Completely unimportant	12.4	9.7	6.8	9.8	10.0
Quite unimportant	7.7	8.5	9.2	10.2	8.6
Somewhat important	9.7	9.4	13.9	12.2	11.2
Quite important	52.7	23.1	25.6	29.8	36.2
Extremely important	16.4	46.5	42.8	36.9	32.5
Don't know/No response	1.1	2.9	1.6	1.0	1.6
Information about the rabbit*					
Completely unimportant	10.1	15.1	10.3	6.0	10.6
Quite unimportant	7.9	5.4	9.3	6.2	7.6
Somewhat important	12.4	9.5	19.7	8.1	13.3
Quite important	55.7	30.2	27.1	33.4	39.7
Extremely important	12.0	37.9	31.9	44.4	27.2
Don't know/No response	1.8	2.0	1.6	1.9	1.8

*Statistically significant at 99% confidence level.

Out-of-home consumer and convenience shopper: The most prominent age group in this segment is consumers aged between 25 and 34 y old (31%). The representation of upper-class consumers is 27.8%, making this the segment with the largest proportion of upper-class consumers. This is also the segment with the smallest proportion of lower-class consumers (3.1%) and lower-middle-class consumers (6%). The scarce presence of consumers from the lower social classes is to be expected in a segment characterised by a fondness for eating out, a preference for making meal times social occasions, and a tendency to purchase convenience products, despite their inflated price tags (Adams *et al.*, 2015). These consumers are mainly located in the South (22.7%) of Spain and in Madrid metropolitan area (17.5%). This segment has the highest percentage of consumers who regularly purchase fresh meat in supermarkets and hypermarkets (46.7%). Consumers from this segment, however, purchase rabbit meat from food markets (15.4%) more often than consumers from other segments do (4 percentage points higher than the mean consumption across all groups). A percentage of 62.5% of these consumers purchase rabbit meat 'Sliced at the counter' (7.1 percentage points lower than the mean consumption across all groups) and 18.4% purchase it 'Ready packaged'. Consumers in this segment cite the same motives for purchasing rabbit meat as consumers in other sectors do. This segment has the highest proportion of regular consumers of turkey meat (51.2%). This segment also has the second highest percentage of regular consumers of rabbit meat (36.9%) and the second highest percentage of consumers who eat little or no rabbit meat (43.9%). The percentage of consumers who report that rabbit meat is tasty (77.9%) and low in fat (28.1%) is higher in this segment than in other segments. Consumers in this segment

Table 8: Meat consumption habits (%).

Variables	'Unconcerned'	'Cooks'	'Out-of-home Consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'	Total
Frequency of beef meat consumption*					
Once a week or more	59.6	60.1	57.8	57.3	58.9
Once every 15 d	25.3	19.5	18.9	14.3	20.6
Once a month	7.6	5.8	16.3	5.6	9.4
Once every 2 or 3 mo	2.0	7.2	3.6	5.6	4.0
Once a year	1.7	2.5	2.5	4.6	2.5
Never	3.9	4.4	0.8	12.7	4.5
Frequency of turkey meat consumption**					
Once a week or more	32.1	32.3	37.0	29.1	33.0
Once every 15 d	10.6	8.0	14.2	5.3	10.3
Once a month	9.9	9.5	7.4	7.2	8.7
Once every 2 or 3 mo	6.3	10.6	8.5	5.1	7.5
Once a year	6.1	5.5	8.3	4.7	6.4
Never	35.0	34.1	24.6	48.6	34.1
Frequency of rabbit meat consumption**					
Once a week or more	13.3	24.4	20.6	19.9	18.5
Once every 15 d	18.1	16.2	16.3	16.8	17.0
Once a month	17.0	14.7	9.2	8.8	13.0
Once every 2 or 3 mo	12.3	6.0	9.9	3.4	9.0
Once a year	4.5	4.5	3.9	5.7	4.5
Never	34.9	34.3	40.0	45.4	37.9

*Statistically significant at 99% confidence level.

**Statistically significant at 95% confidence level.

Note: Other meats were not statistically significant.

are most open to changes in the way rabbit meat may be purchased, with consumers showing a greater willingness to purchase 'Local rabbit meat' than consumers from other segments (38.4% for 'Extremely willing'). Regarding purchase options designed to make shopping and cooking easier, consumers in this segment rate these offers more highly than consumers in other segments do.

Table 9: Reasons and barriers to rabbit meat consumption (open ended questions) (%).

Variables	'Unconcerned'	'Cooks'	'Out-of-home Consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'	Total
Reasons for rabbit meat consumption at home*					
It's tasty; we like it	72.4	68.3	77.9	76.9	74.1
It's healthy and good for you	35.9	15.3	21.5	18.0	25.5
It's not fattening; it's got little fat	14.6	26.6	28.1	19.5	21.1
It's a high quality meat	9.6	2.6	7.1	8.6	7.3
Good price/It's cheap	11.0	3.6	5.6	6.4	7.3
Barriers to rabbit meat consumption at home*					
I/we don't like the taste	26.7	32.5	29.3	30.3	28.9
I'm/we're not used to it	28.3	14.7	22.1	22.0	22.8
I/we prefer other types of meat	19.8	13.6	19.6	27.1	19.9
I/we change our menu	11.8	13.1	11.4	7.3	11.3
I/we already eat too much	3.3	10.9	8.9	5.5	6.7
Some family members do not like it	6.1	11.8	3.0	3.0	5.8

*Statistically significant at 99% confidence level.

Table 10: Willingness to purchase new product proposals of rabbit meat (%).

Variables	'Unconcerned'	'Cooks'	'Out-of-home Consumers and convenience shoppers'	'Rational purchaser with little interest in cooking'	Total
Organic rabbit meat somewhat more expensive than the current offer*					
Completely unwilling	33.2	28.3	26.7	39.8	31.5
Quite unwilling	9.4	6.1	7.4	12.3	8.7
Somewhat willing	15.6	12.5	9.4	7.6	12.0
Quite willing	25.0	12.8	28.5	18.8	22.7
Extremely willing	14.4	37.4	25.0	20.4	22.6
Don't know/No response	2.4	3.0	3.0	1.1	2.5
Premium rabbit meat somewhat more expensive than the current offer*					
Completely unwilling	45.0	28.3	31.1	40.5	37.2
Quite unwilling	7.9	8.5	8.3	12.5	8.8
Somewhat willing	13.6	11.7	12.2	6.9	11.8
Quite willing	21.6	16.4	25.2	19.7	21.4
Extremely willing	9.3	31.0	21.0	19.4	18.3
Don't know/No response	2.6	4.1	2.1	1.1	2.5
Rabbits with the head removed somewhat more expensive than the current offer*					
Completely unwilling	50.4	48.6	38.9	46.1	46.1
Quite unwilling	9.6	9.3	10.9	13.7	10.6
Somewhat willing	15.4	14.0	17.1	8.9	14.5
Quite willing	16.2	7.5	12.7	19.0	14.0
Extremely willing	4.6	18.3	17.7	11.5	12.0
Don't know/No response	3.8	2.4	2.7	0.8	2.8
Rabbit meat ready meals**					
Completely unwilling	66.2	80.3	66.4	72.8	69.9
Quite unwilling	15.6	6.4	10.4	15.5	12.4
Somewhat willing	8.9	4.9	9.1	6.2	7.8
Quite willing	4.8	3.2	9.6	2.8	5.6
Extremely willing	2.1	2.9	2.5	1.9	2.3
Don't know/No response	2.3	2.2	2.1	0.8	2.0
Local rabbit meat*					
Completely unwilling	41.6	30.2	25.7	36.7	34.2
Quite unwilling	5.4	8.7	4.9	9.1	6.4
Somewhat willing	9.8	8.6	10.3	9.8	9.7
Quite willing	26.5	21.0	18.0	19.8	22.0
Extremely willing	14.5	28.9	38.4	23.9	25.5
Don't know/No response	2.2	2.6	2.7	0.8	2.2
Ready-to-cook meals**					
Completely unwilling	63.2	69.9	60.6	72.3	65.2
Quite unwilling	14.6	13.2	11.1	15.2	13.5
Somewhat willing	11.9	6.1	12.7	8.6	10.6
Quite willing	7.2	4.1	9.9	1.5	6.5
Extremely willing	0.9	2.4	3.5	0.5	1.8
Don't know/No response	2.2	4.3	2.1	1.8	2.5

*Statistically significant at 99% confidence level.

**Statistically significant at 95% confidence level.

Rational purchaser with little interest in cooking: This segment has the largest proportion of consumers aged 55 to 64 y old (26.4%) and 65 to 74 y old (21.3%). This is therefore the segment with the oldest consumers. The segment contains just 16.5% of male consumers. The presence of middle-class shoppers (42.4%) is the second highest of

all segments. This segment can be found in the South (22.8%) and in the Northeast (15.3%) of Spain. Like 'Cooks', consumers in this segment prefer to purchase their fresh meat from neighbourhood butchers (51.7%). Accordingly, consumers in this segment purchase more rabbit meat from neighbourhood butchers (58.1%) than consumers in any other segment do. Consumers in this segment consume less rabbit meat than consumers in any other segment: 51.1% of consumers in this segment eat little or no rabbit meat (8.7 percentage points above the mean). Nevertheless, consumers in this segment report the highest scores in terms of purchasing whole rabbits (14.8%). This finding is to be expected. Consumers in this segment consider the price/quality ratio important, and purchasing a whole rabbit is the cheapest way of buying rabbit meat (in terms of price per kilogramme). The most important buying motives for consumers in this segment are 'The appearance of the meat' (23.8% for 'Quite important' and 72.8% for 'Extremely important') and 'Information about the rabbit' (33.4% for 'Quite important' and 44.4% for 'Extremely important'). As in other segments, the main reason for consumers in this segment to eat rabbit is that they find it tasty: 76.9% of consumers highlight this characteristic, making this segment the second highest scoring segment in terms of this motive. As a motive for non-consumption, consumers from this segment highlight 'I don't like the taste' (30.3%) and 'I prefer other types of meat' (27.1%). Consumers from this segment report low scores in all new proposals for purchasing rabbit meat, except 'Rabbits with the head removed', which receives a higher score than in any other segment for the statement 'Quite willing' (19.0%).

CONCLUSIONS

This paper presents a market segmentation of Spanish consumers. The segmentation comprises 4 segments differentiated by consumers' food-related lifestyles. For each segment, the paper explains the consumer profile and behaviour regarding rabbit meat consumption. From a marketing perspective, this information is useful for the rabbit farming sector. First, the segmentation allows marketers to design specific products that target each segment depending on consumer preferences and interest in the new proposals presented in this study. Second, marketers can use the segmentation to tailor advertising campaigns to each segment based on consumers' profiles, preferences and barriers to purchasing. Marketers can thus adapt advertising to the characteristics of each type of consumer. Third, by knowing where consumers from each segment do their shopping, marketers can place the right product in the corresponding distribution channel. Fourth, using consumers' sociodemographic profiles and product preferences, marketers are better informed about how to price their products. Finally, because we also know the size of each segment (as a proportion of the sample), we could perform profitability analyses to assess how relevant, in financial terms, each segment is for a given firm.

Acknowledgements: The authors thank the Spanish Interprofessional Organization to Promote Rabbit Sector (INTERCUN) for its support in the research

REFERENCES

- Adams J., Goffe L., Adamson A.J., Halligan J., O'Brien N., Purves R., Stead M., Stocken D., White M. 2015. Prevalence and socio-demographic correlates of cooking skills in UK adults: cross-sectional analysis of data from the UK National Diet and Nutrition Survey. *Int. J. Behav. Nutr. Phys. Act.*, 12: 99. doi:10.1186/s12966-015-0261-x
- Alvira F. 2011. La encuesta: una perspectiva general metodológica. In: *Colección Cuadernos Metodológicos*, 35, 2ª ed. Centro de Investigaciones Sociológicas, Madrid, Spain.
- Bernués A., Olaizola A., Corcoran K. 2003. Extrinsic attributes of red meat as indicators of quality in Europe: an application for market segmentation. *Food Qual. Pref.*, 14: 265-276. doi:10.1016/S0950-3293(02)00085-X
- Bernués A., Ripoll G., Panea B. 2012. Consumer segmentation based on convenience orientation and attitudes towards quality attributes of lamb meat. *Food Qual. Pref.*, 26: 211-220. doi:10.1016/j.foodqual.2012.04.008
- Bredahl L., Grunert K.G. 1997. Identificación de los estilos de vida alimenticios en España. *Invest. Agr. Econ.*, 12: 247-264.
- Brunner T.A., Siegrist M. 2011. A consumer-oriented segmentation study in the Swiss wine market. *British Food J.*, 113: 353-373. doi:10.1108/00070701111116437
- Brunso K., Scholderer J., Grunert K.G. 2004a. Closing the gap between values and behavior – a means-end theory of lifestyle. *J. Bus. Res.*, 57: 665-670. doi:10.1016/S0148-2963(02)00310-7
- Brunso K., Scholderer J., Grunert K.G. 2004b. Testing relationships between values and food-related lifestyle: results from two European countries. *Appetite*, 43: 195-205. doi:10.1016/j.appet.2004.05.001
- Buckley M., Cowan C., McCarthy M. 2007. The convenience food market in Great Britain: Convenience food lifestyle (CFL) segments. *Appetite*, 49: 600-617. doi:10.1016/j.appet.2007.03.226

- Cea M.A. 2010. Métodos de encuesta. Teoría y práctica, errores y mejora. *Editorial Síntesis, S.A., Madrid, Spain.*
- De Boer M., McCarthy M., Cowan C., Ryan I. 2003. The influence of lifestyle characteristics and beliefs about convenience food on the demand for convenience foods in the Irish market. *Food Qual. Pref.*, 15: 155-165. doi:10.1016/S0950-3293(03)00054-5
- Díaz C. 2014. Hábitos alimentarios de los españoles. Cambios en las maneras de vivir, comprar y comer. *Distribución y Consumo*, 35: 20-29.
- Dimech M., Caputo V., Canavari M. 2011. Attitudes of maltese consumers towards quality in fruit and vegetables in relation to their food-related lifestyles. *Int. Food Agribus. Manag. Rev.*, 14: 21-36.
- Fraj E., Martínez E. 2004. El consumo ecológico explicado a través de los valores y estilos de vida. Implicaciones en la estrategia medioambiental de la empresa. *Cuadernos de Ciencias Económicas y Empresariales*, 46: 33-54.
- González A.M. 2000. Los valores personales en el comportamiento del consumidor. Revisión de diversas metodologías aplicadas al marketing. *ESIC MARKET*, 107: 9-36.
- González-Redondo P., Sánchez-Martínez R. 2014. Characterisation of wild rabbit commercial game farms in Spain. *World Rabbit Sci.*, 22: 51-58. doi:10.4995/wrs.2014.1213
- Grande I., Abascal E. 2005. Análisis de encuestas. *ESIC, Madrid, Spain.*
- Grunert K.G., Brunso K., Bisp S. 1993. Food-related lifestyle: Development of a cross-culturally valid instrument for market surveillance. *MAPP working paper*, 12: 1-38.
- Grunert K.G., Perrea T., Zhou Y., Huang G., Sørensen B.T., Krystallis A. 2011. Is food-related lifestyle (FRL) able to reveal food consumption patterns in non-Western cultural environments? Its adaptation and application in urban China. *Appetite*, 56: 357-367. doi:10.1016/j.appet.2010.12.020
- Hair J.F., Anderson, R.E., Tatham, R.L., Black, W.C. 2008. Análisis multivariante, 5th ed. *Prentice Hall Iberia, Madrid, Spain.*
- International Rabbit Reproduction Group. 2005. Recommendations and guidelines for applied reproduction trials with rabbit does. *World Rabbit Sci.*, 13: 147-164. doi:10.4995/wrs.2005.521
- Kavak B., Gumusluoglu L. 2006. Segmenting Food Markets The Role of Ethnocentrism and Lifestyle In Understanding Purchasing Intentions. *Int. J. Market Res.*, 49: 71-94.
- Kotler P., Armstrong G. 2015. Principles of marketing, 16th ed. *Prentice Hall, Upper Saddle River NJ, USA.*
- Kotler P., Keller K.L. 2015. Marketing management, 15th ed. *Prentice Hall, Upper Saddle River NJ, USA.*
- Law J. 2009. Dictionary of business and management, 5th ed. *Oxford University Press, Oxford, UK.*
- Malhotra N.K. 2008. Investigación de mercados, 5th ed. *Pearson Educación, Naucalpan de Juárez, México.*
- McNitt J., Way R., Way M., Forrester-Anderson I. 2003. Growth of fryers reared and (or) finished using controlled grazing in movable pens. *World Rabbit Sci.*, 11: 189-198. doi:10.4995/wrs.2003.507
- Monteiro C.A., Levy R.B., Moreira R., Rugani I., Cannon G. 2011. Increasing consumption of ultra-processed foods and likely impact on human health: evidence from Brazil. *Public Health Nutr.*, 14: 5-13. doi:10.1017/S1368890010003241
- Nie C., Zepeda L. 2011. Lifestyle segmentation of US food shoppers to examine organic and local food consumption. *Appetite*, 57: 28-37. doi:10.1016/j.appet.2011.03.012
- Pasamón F. 2010. La redefinición de la industria de alimentación y su distribución ante el nuevo consumidor. In: *Alimentación en España. Producción, Industria, Distribución y Consumo 2010. Mercasa, Madrid, Spain*, 16-25.
- Plummer J.T. 1974. Concept and application of life style segmentation. *J. Mark.*, 38: 33-37. doi:10.2307/1250164
- Resa S. 2014. Innovación a la IV y a la V gama. *Distribución y Consumo*, 132: 27-30.
- Rong-Da A. 2014. Enthusiastically consuming organic food. An analysis of the online organic food purchasing behaviors of consumers with different food-related lifestyles. *Internet Res.*, 24: 587-607. doi:10.1108/IntR-03-2013-0050
- Sánchez M., Sanjuán A.I. 2002. Estudio de las preferencias de consumidores y distribuidores especializados respecto del producto ecológico. *Econ. Agr. Rec. Nat.*, 2: 93-114.
- Santesmases M. 1996. Términos de marketing: Diccionario - Base de datos. *Ediciones Pirámide, Madrid, Spain.*
- Schnettler B., Mora M., Mills N., Miranda H., Sepúlveda J., Denegri M., Lobos G. 2012. Tipologías de consumidores según el estilo de vida en relación a la alimentación: un estudio exploratorio en el sur de Chile. *Rev. Chilena Nutr.*, 39: 165-172. doi:10.4067/s0717-75182012000400009
- Scholderer J., Brunso K., Bredahl L., Grunert K.G. 2004. Cross-cultural validity of the food related lifestyles instrument (FRL) within Western Europe. *Appetite*, 42: 197-211. doi:10.1016/j.appet.2003.11.005
- SPSS. 2011. Manual del usuario del sistema básico IBM SPSS Statistics 20. *IBM Corporation, Armonk NY, USA.*
- Uriel E., Aldás J. 2005. Análisis multivariante aplicado: Aplicaciones al marketing, investigación de mercados, economía, dirección de empresas y turismo. *International Thomson Editores Spain Paraninfo S.A., Madrid, Spain.*