

RESEARCH ARTICLE

OPEN ACCESS

# An insight into the influence of packaging and presentation format on consumer purchasing attitudes towards cheese: a qualitative study

Ali Eldesouky and Francisco Mesias\*

*Escuela de Ingenierías Agrarias. Universidad de Extremadura. Avda. Adolfo Suarez, s/n. 06007 Badajoz, Spain*

## Abstract

Using packaging and presentation format to appeal to consumers and to communicate product benefits directly on the shelf is a competitive advantage in the food industry. Both packaging and presentation format can attract consumers' attention and influence their perceptions and purchasing decisions. Therefore, the objective of this study is to obtain a preliminary insight into the main attributes and factors that most affect consumers' purchase decisions regarding presentation and packaging of cheese products. To achieve this goal, we have used the focus group technique, because of its considerable potential as a mean to collect qualitative data within consumer research. The results showed that price, product quality, packaging, origin and brand are decisive factors in the purchase decision of food products. Although packaging and presentation of food have potential influence on the consumer's choice and purchase, packaging colour and design are the most attractive factors during the purchase process. Thus, packaging format and colour may influence consumers prior to the purchase. These stimuli can be decisive when buying cheese and may also help producers to communicate the differentiation of their products to consumers.

**Additional key words:** qualitative research; focus group; food packaging.

## Introduction

During the last decades several trends in food consumption have been observed. These trends imply changes in the social and economic environment as well as in lifestyle. Working patterns, higher female employment rates, lack of time and income growth have led to an increasing consumption of fast food, convenience foods and food away from home (Petzoldt *et al.*, 2008). At the same time, the citizens of Western developed countries have moved away from primary production and they procure the necessary food from supermarkets, grocery stores and various kinds of large and small food stores. Thus urbanization has resulted in an increased consumption of packaged and processed food, as consumers are now seeking their food in packages on the shelves of food stores (USDA, 2011). Furthermore, and as a result of this behavior, there is a growing interest in packaging as a tool for sales promotion and a stimulator of impulsive buying

behavior. Therefore, packaging performs an important role in marketing communications, especially in the point of sale, and could be treated as one of the most important factors influencing consumer's purchase decision (Kuvykaite *et al.*, 2009).

Furthermore, when developing new products or improving the existing ones, it is important to understand how consumers perceive innovations, their expectations, packaging attributes they consider most attractive, and which information positively affects their buying decision in order to improve the likelihood for the product to be accepted (Di Monaco *et al.*, 2007). The use of packaging and labels to lure consumers and to communicate product benefits directly on the shelf constitutes a competitive advantage factor in the food industry sector (Dantas *et al.*, 2011).

Despite the important role that packaging can play in attracting consumers' attention and in influencing their perceptions and purchasing decisions, there are not many published studies about the influence of packaging on consumer preferences (Ares & Deliza, 2010; Puyares *et al.*, 2010). In this context, it is important to find methodological approaches that

\*Corresponding author: [fjmesias@unex.es](mailto:fjmesias@unex.es)  
Received: 27-12-13. Accepted: 06-05-14.

make it possible to determine both the importance of packaging on the purchasing process and which are the most important factors linking packaging and consumer attitudes.

This task is especially difficult if one considers that there are many possible aspects affecting the relationship between consumers and packaging: size, materials, design or environmental concerns. Therefore, consumers may find it difficult to indicate their thoughts and beliefs in a typical research interview. Additionally, respondents do not always share their opinions with the interviewer because they are often unaware of the underlying motives, values and attitudes that affect their choice towards a product over another (Donoghue, 2000). Given these limitations, an approach towards understanding consumer perceptions and behavior when choosing food and the influence of packaging in food purchasing is the application of qualitative research techniques (Roinien *et al.*, 2006; Vidal *et al.*, 2013).

Qualitative research has been defined as research that looks deep into the quality of social life, places the study within particular settings which provide opportunities for exploring all possible opinions and perceptions of the participants (Holliday, 2002). It is appropriate to discover the nature of a problem in the initial stages of the process; facilitates the recognition of a decision situation and helps to identify alternative actions to the relevant variables and hypotheses (Guerrero *et al.*, 2009). Qualitative research has been extensively used in the food sector (Guerrero *et al.*, 2009; Ares & Deliza, 2010; Barrena-Figueroa & Garcia-Lopez-de-Meneses, 2013; Vaca & Mesías, 2014) and can be used to approach a problem and its causes, this type of research being more flexible and versatile (Stewart *et al.*, 1994).

Among qualitative techniques, focus groups are considered to be one of the techniques generally used at the earliest stages of consumer research. This method is based on group dynamic concepts, and the discussion is stimulated by the exchange of personal comments (Galvez & Resurreccion, 1992). Focus groups started to be used in marketing research but have been widely adapted to social and applied sciences. In these groups, the interviewer creates a supportive environment, asking focused questions to encourage the discussion and the expression of different opinions and points of view (Krueger, 1988). This technique relies heavily on careful planning and conduction by an experienced moderator sufficiently

knowledgeable about the product under discussion. The physical setting must be informal and comfortable and the focus group should last around 1-3 hours. The whole meeting is recorded using audio or video devices in order to allow further analysis.

Moreover, the application of this technique can be used to address important issues, such as understanding the perceptions, preferences and consumer behavior in relation to a product category; or to find the expressions, language and concerns of a segment of consumers (Morgan & Krueger, 1998); or to get impressions on the concepts of a new product, getting participants interpretations of results from earlier studies (Marshall & Rossman, 1999). For example, Deliza *et al.* (1999) applied focus groups in order to identify fruit juice packaging characteristics relevant to consumers. In addition, Deliza *et al.* (2003) used a focus group to investigate the impact of information about the production of fruit juice on consumer perception of the product.

Indeed, the main advantage of focus groups is that they allow much more freedom of expression from the participants than other methods. In this method, the attendants choose the way in which they will answer, allowing interaction, debate, and exchange of views during the discussion with the other participants, adding complexity to the qualitative information (Dransfield *et al.*, 2004). In this paper, we used focus groups to identify those attributes and factors regarding the presentation and packaging of cheese products which most affect the purchase decision.

## Material and methods

### Data collection

Focus groups are generally composed of 8 to 12 people who have not previously met each other and who are selected because they share certain characteristics relevant to the study's questions. In this study, four focus group sessions were carried out with a total of 38 participants.

Each focus group discussion was developed with eight to twelve participants of both genders (53% men & 47% women) with ages ranging between 27 and 55 years, in order to create more integration among the participants. They were selected at the University Campus of Badajoz (Spain) between December 2012

and January 2013, by means of a convenience sampling, a non-probability method commonly used in qualitative research when the aim is to obtain an approximation to a specific topic (Kinnear & Taylor, 1993). Purchasing habits were the criteria used to recruit the participants in the study.

Although the number of surveys could be considered inadequate for a market research study, it is in line with the samples used by other authors applying focus groups (Chambers *et al.*, 2007; Dantas *et al.*, 2011; Debucquet *et al.*, 2012). Since this is a qualitative approach and due to the limitations of the sample, the findings may not be generalized in a direct way, although they are valuable to develop subsequent quantitative research.

Eleven packages of cheese with different characteristics (shape, design and size) purchased from local supermarkets were provided to the participants in order to allow them to express their opinions more easily. Participants were allowed to manipulate the packages at will (opening or closing them, comparing sizes, etc). Diversification in colour, information, size and design pattern were the main criteria used to select the samples for this study.

### Development of the focus group

The four sessions were conducted in a big room where the participants were comfortably seated. All the participants volunteered for the study and did not receive any monetary incentive for their participation. The participants sat around a table to allow interaction, visual contact, and harmonious discussion. The sessions were recorded on audio for further analysis and conducted by the same moderator.

During the introduction, the moderator defined the purpose of the focus group, the moderator's role and the aim of the study. In order to get everyone acquainted with one another and to get the participants thinking about the topic of interest, each of the participants was asked to introduce his/her name and briefly discuss one concern that he/she had about purchase decisions and food packaging. This procedure was intended to create an atmosphere of interaction. The participants were assured that there were no right or wrong answers to the questions presented and they were encouraged to express their opinions. The discussion began with questions about food packaging, the influence of packaging and their attitudes regarding

**Table 1.** Guideline to conduct the four group sessions

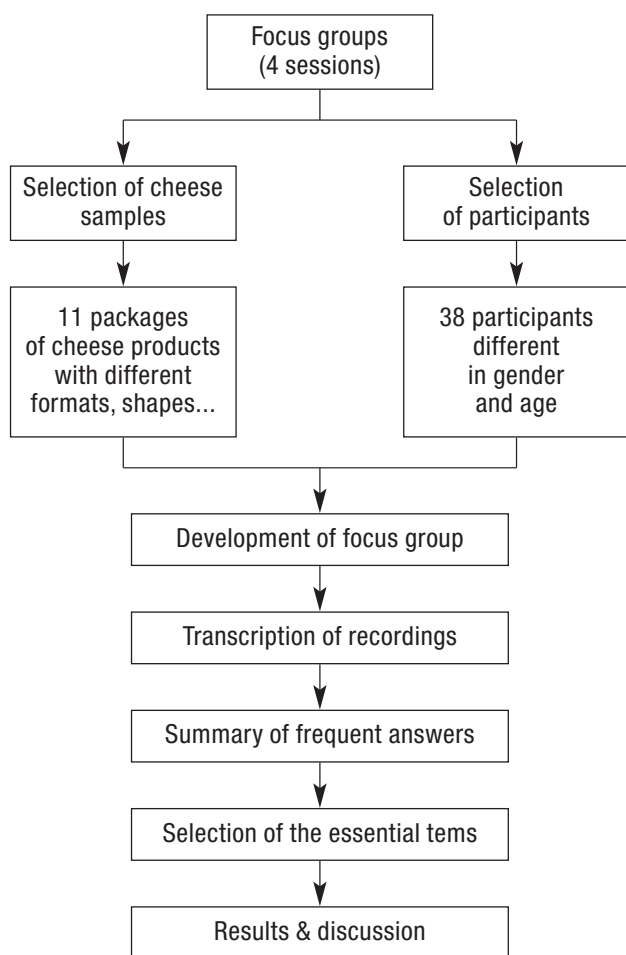
Question	
<b>Food purchasing process</b>	
1	What are the main factors in your purchasing process?
2	Do you think lack of time at the sale point plays a role in the purchasing decision?
<b>Food packaging and the purchase decision</b>	
3	What are your concerns, opinions and thoughts about food packaging?
4	Is there any packaging influence in the purchase decision?
<b>Food packaging and information</b>	
5	Do you think the information on the food package affects your purchase decision?
6	What kind of information do you expect to find on a food package?
<b>Food packaging characteristics ( design / material / colour)</b>	
7	Do you think the packaging size and format may affect your purchasing decision?
8	Do you think colour and images in the package could influence your purchasing decision?
9	Do you believe that well designed package may create more confidence in the product?

consumers' cheese purchase intention. These preliminary questions were aimed at starting a discussion in relation to food packaging and its influence when buying food. Table 1 shows the script followed by the moderator during the different focus groups.

### Data analysis

After each focus group, a report reflecting the main points of interest was produced. The audio recordings of the focus groups were transcribed and the transcriptions were analyzed. This process was performed three times, comparing different focus group discussions and the responses of different participants until central themes emerged. Data were analyzed using content analysis (Stewart & Shamdasani, 1990), a research technique used to make replicable and valid inferences from texts or other meaningful materials (Krippendorff, 2004).

In this paper, the use of content analysis followed an adaptation of the procedures described by Flick



**Figure 1.** Process followed to develop and analyze a focus group.

(2002). Firstly, the information was processed and organized into common themes. Secondly, topics mentioned in the four groups were considered important and included in the results summary. Finally, all words and their meanings were considered in the analysis, with comments for each question being examined to define similarities and differences. No statistical analysis was carried out due to the qualitative nature of focus groups. Fig. 1 shows the complete process followed to develop and analyze the focus groups.

## Results

The results described in this section are presented following the above mentioned script used to conduct the focus groups. Tables 2 to 5 show the main

comments related to the different topics of the discussion and prepared from the participants' quotes. It must be highlighted that there were no themes that emerged for any individual gender or age group.

### General factors affecting the purchasing process

Table 2 shows the main observations made by the participants about the general factors affecting their purchasing decisions.

According to the general view of the participants, the most relevant factors in the purchasing process for food products were price, quality of the product, brand, origin and lack of available time when shopping. In fact, it was widely reported that price was a dominant factor in the purchasing decisions due to budget constraints.

It is noteworthy that just a few participants mentioned food quality as the most important aspect when making their food choice (they stated that they always searched for the highest quality products, regardless of their price). Similarly, brand was also highlighted as an important factor when choosing food, but just for some participants that linked it to brand confidence.

The origin of the product was also frequently indicated as an essential factor in the purchasing intention, with participants prioritizing the origin Spain. This result could be expected due to the city where the study took place and given the participants' Spanish citizenship. Finally, lack of available time at the moment of purchase was also stated as a factor affecting the purchasing process, as consumers buy more packaged products due to working patterns and higher female employment.

**Table 2.** Comments about food purchasing process

- 
- Price is an essential factor in the purchasing process.
  - Product quality influences greatly purchase intentions.
  - Package content must be adapted to family size and consumption level.
  - Spanish origin of food products influences food choice.
  - Many participants would pay more for specific brands.
  - Packaging and its relevant items (nutritional information, size and design) play an important role in consumers' decisions.
  - Lack of shopping time leads to purchasing more packaged food.
-

**Table 3.** Comments about packaging and presentation

- 
- Food is packaged for long-time preservation and storability.
  - Package has a great influence in the first purchase.
  - Product packaging generates consumer expectations.
  - Food packaging identifies the characteristics of the product.
  - Food packaging facilitates handling and marketing of the product.
- 

### Food packaging and presentation

Regarding the comments about Food packaging and presentation, Table 3 summarizes the remarks made by the participants.

Most of the participants stated that food is primarily packaged to allow its conservation and storage for a long time. Good packaging and presentation are essential to prevent any wastage that may occur during transportation and distribution. In particular, for cheese products, the participants showed that presentation and packaging greatly affect the purchasing decision, especially in their first purchase of the product.

### Food packaging and information

Concerning the information displayed on the packaging (Table 4), the participants in the focus groups indicated that their main information requirements were: nutritional information, ingredients, expiry date and origin. The majority of the participants also stated that the expiry date was the most essential information for them, although just some of them indicated they usually read the nutritional information and the list of ingredients (for example, consumers looking for gluten free products due to allergies).

**Table 4.** Main comments about food packaging and information

- 
- Participants stated that they always look for specific information on the package: expiration date, origin and weight.
  - The majority of the attendants said that expiration date is the most relevant information.
  - Many participants indicated that calorie content information is essential for their choice of cheese.
  - Some of the consumers searched for information about milk type since they preferred goat milk cheese.
  - It was reported that packaging information should appear in different languages to ease communication between consumers and producers.
- 

In addition, it emerged that calorie content information was frequently searched, as the participants preferred the cheese with low calories due to overweight problems. Some participants also reported that the information must be in different languages in order to improve the communication to consumers from different countries.

### Food packaging characteristics (design/format/materials/colours) and purchasing decisions

Finally, Table 5 shows the comments concerning the last section of the focus groups. Packaging design and colour were mentioned as playing an important role in attracting consumers' attention at the time of purchase, as the colour helps to distinguish the product according to consumers' preferences (for example full-fat and light cheese of the same brand). Moreover, most of the attendees stated that some colours, such as red, orange or yellow, attracted more attention.

In addition, it was also widely indicated that the packaging design of the cheese products was substantial to characterize the product inside it. Many participants strongly mentioned some additional characteristics of the package such as easiness to open, with resealable packaging or packaging with a lid being considered positively in the buying decision. Packaging size was often reported as a fundamental factor in their purchase intent, as the majority of the participants preferred cheese in small packages (weighing from 125 g to 200 g) due to family size.

Regarding the packaging format, all the focus groups showed a marked preference for the packaging format with small individual slices and a round shape. Although the cheese packages used in the focus group

**Table 5.** Comments about food packaging characteristics

- 
- Packaging colour (specially red, orange and yellow) influences consumer's purchase intent by attracting his/her attention.
  - Numerous participants preferred smaller-sized packages.
  - Many attendants chose the package with additional characteristics such as easiness to open and resealability.
  - Packaging format is a determining factor when purchasing cheese.
  - Plastic vacuum package is the most preferred for cheese products.
-

sessions were made of plastic and paperboard (according to what can be found in the market), a preference for the plastic package was clearly stated by the majority of participants. The main reason given for this behavior was that plastic allowed them to see the product before buying it, thus increasing their confidence in the product.

## Discussion

It must be pointed out that the factors that were considered most relevant in our focus groups (price, brand, product packaging, quality of the product and its origin) are frequently mentioned in consumer research as some of the determining attributes guiding food purchasing (Dantas *et al.*, 2011). This consensus may show a somehow uniform behavior of consumers towards food packaging.

The fact that price is the dominant factor influencing consumer behavior as regards food has also been found by other researchers, such as Carneiro *et al.* (2005), who showed that the purchasing decisions for soybean oils were clearly affected by price, with low-priced soybean oils obtaining a higher purchasing intention than high-priced ones. This behavior is also in line with that reported by Deliza (1996), who reinforced the positive impact of low-price products on consumers' purchasing intention.

As mentioned in the previous section, just a few participants stated that food quality was the most important aspect regarding their choice of food. One could expect a different shopping conduct for food, as consumers' awareness for food is increasing, together with the importance given to food safety scandals or to the presence of additives and other artificial substances in food. In fact, other researchers (Feng *et al.*, 2012) have found that quality and safety were considered the most important factors affecting consumers' purchasing decisions in food products. This inconsistency may be caused by the fact that we were dealing with packed food, and therefore consumers accept it is not natural but processed food.

The remarks concerning the importance of brand are similar to those of Ares *et al.* (2010), who indicated that brand is a key factor influencing consumers' choice of functional yoghurt. These results agree with the findings of other authors' (Moreno *et al.*, 2012), who found brand to be an outstanding factor in the consumer response to a chocolate product.

It is interesting to note that the significance granted to origin in this study has also been stated in other studies (Papanagiotou *et al.*, 2013) where it not only was considered one of the most salient factors for consumers' purchasing decisions, but it was given even more importance than price.

On the subject of food packaging and presentation, Schifferstein *et al.* (1999) observed that product packaging may be a driver of consumer decision making, because it allows consumers to draw inferences about the product regarding its attributes or—in the case of foodstuffs and beverages—its taste. Product packaging might, in addition to shaping expectations, even modulate subsequent product experiences. Therefore, it can be said that packaging performs an important role in marketing communications and it could be treated as one of the most important factors influencing consumers' purchasing decisions (Wells *et al.*, 2007).

Regarding the information displayed on the packaging, the results of the focus groups have been confirmed by different researchers. Jaeger (2006) found that food choices depend on non-sensory attributes, such as information acquired about a product (brand, price or nutritional knowledge). Silayoi & Speece (2004) showed that consumers tended to judge food product performance by reading the label more carefully. Finally, Moskowitz (1994) showed that nutritional information and product ingredients affected consumers' acceptance of cheese and purchasing decisions thereof. All these studies reinforce the idea that the information delivered on the packaging generates a strong impact on the consumers' purchasing decision.

Previous researches on the topic of packaging characteristics (Puyares *et al.*, 2010; Becker *et al.*, 2011) had found that visual design parameters such as packaging colour and packaging shape affect consumers' perceptions and expectations. Bone & France (2001) also suggested that the graphical component of a food label (colour and image) could significantly influence the beliefs and purchasing intentions of the consumers, while Mizutani *et al.* (2010) presented similar findings for juice packages. Therefore, graphics on packaging have the potential to influence consumers' product-related attitudes and behaviors (Westerman *et al.*, 2013).

Concerning packaging design and size, the findings of this paper are coherent with those of other authors. Thus, Bloch (1995) stated that the design of a product packaging can influence the consumers' cognitive and

affective responses, while Draskovic (2010) also established the preference for small packages that came up in our study, although in his case the product analyzed was soft drinks.

In a way consistent with our findings about packaging format, Bar & Neta (2006) and Westerman *et al.* (2013) found that consumers preferred curved shapes for the packaging of different food products, such as chocolate and water. Furthermore, Berkowitz (1987) also stated the higher preference for rounded slices *vs.* rectangular slices that was indicated by the attendants to our focus groups. Therefore, aesthetic preferences relating to packaging design influence consumers' product attitudes and purchasing decisions (Creusen & Schoormans, 2005).

It can be concluded that focus groups have considerable potential as means of collecting qualitative data within consumer research. Knowing consumers and understanding their needs and behavior are key factors to a commercially successful product. By using this technique, we have identified that price, product quality, packaging, origin and brand are the decisive factors in the purchasing decision of food products. Although food packaging and presentation have a potential influence on consumer's choice and purchasing, packaging colour and design are the most attractive factors during the purchasing process. Therefore, packaging format and colour can be decisive in selling cheese, as, before buying the product, consumers get previous impressions through the packaging. Therefore, cheese companies should seek to get messages regarding their products across to the consumers through packaging and presentation in order to differentiate the product in the market.

## Acknowledgments

The authors would like to acknowledge the support and funding provided by the International Centre for Advanced Mediterranean Agronomic Studies and the Mediterranean Agronomic Institute of Zaragoza, which made this research possible.

## References

- Ares G, Deliza R, 2010. Studying the influence of package shape and colour on consumer expectations of milk desserts using word association and conjoint analysis. *Food Qual Prefer* 21(8): 930-937.
- Ares G, Giménez A, Deliza R, 2010. Influence of three non-sensory factors on consumer choice of functional yogurts over regular ones. *Food Qual Prefer* 21: 361-367.
- Bar M, Neta M, 2006. Humans prefer curved visual objects. *Psychol Sci* 17(8): 645-648.
- Barrena-Figueroa R, Garcia-Lopez-de-Meneses T, 2013. The effect of consumer innovativeness in the acceptance of a new food product. An application for the coffee market in Spain. *Span J Agric Res* 11(3): 578-592.
- Becker L, van Rompay T, Schifferstein H, Galetzka M, 2011. Tough package strong taste: The influence of packaging design on taste impressions and product evaluations. *Food Qual Prefer* 22: 17-23.
- Berkowitz M, 1987. Product shape as a design innovation strategy. *J Prod Innovat Manag* 4: 274-283.
- Bloch PH, 1995. Seeking the ideal form: Product design and consumer response. *J Marketing* 59: 16-29.
- Bone PF, France KR, 2001. Package graphics and consumer product beliefs. *J Bus Psychol* 15(3): 467-89.
- Carneiro JDS, Minim VPR, Deliza R, Silva CHO, Carneiro JCS, Leao FP, 2005. Labelling effects on consumer intention to purchase for soybean oil. *Food Qual Prefer* 16: 275-282.
- Chambers S, Lobb A, Butler L, Harvey K, Traill WB, 2007. Local, national and imported foods: A qualitative study. *Appetite* 49: 208-213.
- Creusen MEH, Schoormans JPL, 2005. The different roles of product appearance in consumer choice. *J Prod Innovat Manag* 22: 63-81.
- Dantas M, Nakajima V, Rosa D, Andrade F, Canzian C, Martino H, 2011. Guava jam packaging determinant attributes in consumer buying decision. *Ciênc Tecnol Aliment* 31(3): 567-570.
- Debucquet G, Cornet J, Adam I, Cardinal M, 2012. Perception of oyster-based products by French consumers. The effect of processing and role of social representations. *Appetite* 59: 844-852.
- Deliza R, 1996. The effects of expectation on sensory perception and acceptance. PhD thesis, University of Reading, UK.
- Deliza R, Macfie HJH, Hedderley D, 1999. An investigation on the package features affecting consumer perception of fruit juice using repertory grid and focus group methods. *Braz J Food Technol* 2: 63-71.
- Deliza R, Rosenthal A, Silva ALS, 2003. Consumer attitude towards information on non conventional technology. *Trends Food Sci Tech* 14: 43-49.
- Di Monaco R, Cavella S, Torrieri E, Masi P, 2007. Consumer acceptability of vegetable soups. *J Sens Stud* 22: 81-98.
- Donoghue S, 2000. Projective techniques in consumer research. *J Family Ecol Consum Sci* 28: 47-53.
- Dransfield E, Morrot G, Martin J, Ngapo T, 2004. The application of a text clustering statistical analysis to aid the interpretation of focus group interviews. *Food Qual Prefer* 15(5): 477-488.
- Draskovic N, 2010. Packaging convenience. Consumer packaging feature marketing tool? *Int J Manage Cases* 12(2): 267-274.

- Feng H, Feng J, Tian D, Weisong M, 2012. Consumers' perceptions of quality and safety for grape products: A case study in Zhejiang Province China. *Brit Food J* 114(11): 1587-1598.
- Flick U, 2002. An introduction to qualitative research. Sage, London, UK.
- Holliday A, 2002. Doing and writing qualitative research. Sage, London, UK.
- Galvez FC, Resurreccion AVA, 1992. Reliability of the focus group technique in determining the quality characteristics of mung bean noodles. *J Sens Stud* 7: 315-326.
- Guerrero L, Guardia MD, Xicola J, Verbeke W, Vanhonacker B, Biemens SZ, Sajdakowska M, Rosse CS, Issanchou S, Contel M *et al.*, 2009. Consumer driven definition of traditional food products and innovation in traditional foods - A qualitative cross-cultural study. *Appetite* 52: 345-354.
- Jaeger SR, 2006. Non-sensory factors in sensory science research. *Food Qual Prefer* 17: 132-144.
- Kinnear TC, Taylor JR, 1993. Investigación de mercados. Un enfoque aplicado. McGraw-Hill Interamericana S.A., Bogotá, Colombia.
- Krippendorff K, 2004. Reliability in content analysis: some common misconceptions and recommendations. *Hum Commun Res* 30(3): 411-433.
- Krueger RA, 1988. Focus groups: a practical guide for applied research. Sage, Newbury Park, CA, USA.
- Kuvykaite R, Dovaliene A, Navickiene L, 2009. Impact of package elements on consumers purchase decision. *Econ Manage* 14: 441-447.
- Marshall C, Rossman GB, 1999. Designing qualitative research. Sage, London, UK.
- Mizutani N, Okamoto M, Yamaguchi Y, Kusakabe Y, Dan I, Yamanaka T, 2010. Package images modulate flavor perception for orange juice. *Food Qual Prefer* 21(7): 867-872.
- Moreno M, Tarrega A, Torrecasana E, Blanch C, 2012. Influence of label information on dark chocolate acceptability. *Appetite* 58: 665-671.
- Morgan DL, Krueger RA, 1998. The focus group. Sage, Thousand Oaks, CA, USA.
- Moskowitz HR, 1994. Food concepts and products. Just-in-time development. Food and Nutrition Press, Trumbull, USA.
- Papanagioutou P, Kalogianni I, Melfou K, 2013. Consumer's expected quality and intention to purchase high quality pork meat. *Meat Sci* 93(3): 449-454.
- Petzoldt M, Joiko C, Menrad K, 2008. Factors and their impacts for influencing food and safety in the value chains. University of Applied Science, Weihenstephan, Germany.
- Puyares V, Ares G, Carrau F, 2010. Searching a specific bottle for Tannat wine using check-all-that apply question and conjoint analysis. *Food Qual Prefer* 21: 684-691.
- Roininen K, Arvola A, Lahteenmaki L, 2006. Exploring consumers' perceptions of local food with two different qualitative techniques: laddering and word association. *Food Qual Prefer* 17: 20-30.
- Schifferstein HNJ, Kole APW, Mojet J, 1999. Asymmetry in the disconfirmation of expectations for natural yogurt. *Appetite* 32: 307-325.
- Silayoi P, Speece M, 2004. Packaging and purchase decisions: An exploratory study on the impact of involvement level and time pressure. *Brit Food J* 106(8): 607-628.
- Stewart B, Olson D, Goody C, Tinsley A, 1994. Converting focus group data on food choices into a quantitative instrument. *J Nutr Educ* 26: 34-36.
- Stewart DW, Shamdasani PN, 1990. Focus groups - Theory and practice. Sage, Newbury Park, USA.
- USDA, 2011. Global food markets: international consumer and retail trends. USDA Economic Research Service. Available in <http://www.ers.usda.gov/topics/international-markets-trade/global-food-markets/international-consumer-retail-trends.aspx#.U2N1MFdGXME>.
- Vaca SI, Mesías FJ, 2014. Percepciones de los consumidores españoles hacia las frutas de Ecuador: un estudio preliminar cualitativo con técnicas proyectivas. *ITEA* 110(1): 89-101.
- Vidal L, Ares G, Giménez A, 2013. Projective techniques to uncover consumer perception: Application of three methodologies to ready-to-eat salads. *Food Qual Prefer* 28: 1-7.
- Wells LE, Farley H, Armstrong GA, 2007. The importance of packaging design for own-label food brands. *Int J Retail Distrib Manage* 35(9): 677-690.
- Westerman SJ, Sutherland EJ, Gardner PH, Baig N, Critchley C, Hickey C, Mehigan S, Solway A, Zervos Z, 2013. The design of consumer packaging: effects of manipulations of shape orientation and alignment of graphical forms on consumers' assessments. *Food Qual Prefer* 27: 8-17.