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Social networks as a new marketing channel for animal food products: a qualitative study in Spain

Elghannam, A.[1,3] and Mesías, F.J.[2,3@]

[1]Department of Agricultural Economics. Faculty of Agriculture, Damanhour University. Egypt.
[2]Departamento de Economía. Universidad de Extremadura. Badajoz. España.
[3]Instituto de Investigación de Recursos Agrarios (INURA). Universidad de Extremadura. Badajoz. España.

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SUMMARY

This study aims to delve into consumers' willingness to buy food through social networks, as there are few existing studies addressing the use of social marketing within the food sector, and with a special focus on foods from animal origin. Due to the nature of the topic, qualitative research has been used in this study and social networks were chosen to spread the survey. Participants completed two free-listing tasks related to types of food they would/would not buy on social networks, with further analysis performed by triangulation. The analysis suggests the most important food categories where the use of social media could be of great value for agro-food businesses. Some significant findings that emerge from this study are that consumers would be willing to buy a wide range of food and beverages, among which stand out the preserved food, legumes, rice, pasta, jam, honey, sugar etc. The results should be considered as preliminary and subject to further confirmation with a representative sample of the population due to the qualitative character of the study and the non-probability convenience sampling used. The study might open new possibilities for food businesses, especially for SMEs, to develop a new electronic shopping channel enabling them to increase sale levels of these products and, therefore, increase profitability and reduce costs.

Las redes sociales como nuevo canal de comercialización de alimentos de origen animal: un estudio cualitativo en España

Palabras clave adicionales

Marketing social de alimentos.
Análisis cualitativo.
Free-listing.
Redes sociales.
Comercio electrónico.

RESUMEN

Este estudio pretende profundizar en la disposición de los consumidores a comprar alimentos a través de las redes sociales, ya que existen pocos estudios sobre el uso del marketing social en el sector alimentario y con especial atención a los alimentos de origen animal. Debido a la naturaleza del tema, se ha utilizado la investigación cualitativa en este estudio y se decidió difundir la encuesta a través de las redes sociales. Los participantes completaron dos tareas de free-listing relacionadas con los tipos de alimentos que comprarían o no comprarían en las redes sociales, realizándose un análisis posterior por triangulación. El estudio muestra las categorías de alimentos más importantes en las que el uso de las redes sociales podría ser de gran interés para las empresas agroalimentarias. Los resultados de este trabajo muestran que los consumidores estarían dispuestos a comprar una amplia gama de alimentos y bebidas, entre los que destacan las conservas de alimentos, legumbres, arroz, pasta, mermelada, miel, azúcar, etc. Estos resultados deben considerarse como preliminares y sujetos a confirmación adicional con una muestra representativa de la población, debido al carácter cualitativo del estudio y al muestreo de conveniencia no probabilístico utilizado. El estudio puede abrir nuevas posibilidades para las empresas alimentarias, especialmente las PYME, de cara al desarrollo de nuevos canales de compras electrónicas que les permita aumentar los niveles de venta de sus productos y, por tanto, aumentar la rentabilidad y reducir los costes.

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INTRODUCTION

E-commerce, as a tool that allows buying and selling goods through the internet, is a means by which businesses and consumers can obtain and transmit information, build and maintain relationships, and conduct transactions or payments through telecommunication technologies (Carpio and Lange 2015). These processes include business to business (B2B) transactions, consumer to consumer (C2C) purchases and transactions between businesses and consumers (B2C). In the B2C model, consumers have a wide range of different motivations and different approaches which trigger their use of online platforms to purchase (e-shopping). E-shopping not only provides convenience, financial benefits and easy information accessing but also hedonic aspects like enjoyment and satisfaction (Mandilas et al. 2013; Shang et al. 2005; Joines et al. 2003).

Within the food sector, the use of e-commerce shows very high growth rates in the figure of consumer purchases per year. However, online food sales still

represent a very small proportion of total food sales (Carpio and Lange 2015). In 2012, data on the relevance of online food purchases across the European Union shows that 9% of internet users purchased food and groceries on the internet. UK was the country with the highest proportion of food e-shoppers with 21%, while only about 6 % of Spanish internet users bought food and groceries online.

During the past decade, the spectacular development of internet use -especially the Web 2.0 and online social networks- has aroused great interest in social marketing (marketing via social networks). Social networking sites and online communities give the public new means for receiving and providing information (Rutsaert et al. 2013). Some social networks support both the maintenance of existing social ties and the formation of new connections based on shared interests, or activities, while others attract people based on common language or shared cultural, or nationality (Ellison 2008). Social networking sites also vary in the extent to which they incorporate new information and communication tools, such as mobile connectivity, blogging, and photo or video-sharing (Ellison et al. 2007; Ellison 2008). Most social networks offer their services for free, relying on advertising revenues to cover their expenses. This means that marketing aspects are the core factor of success for this type of sites.

From a market angle, social networks with their collections of individuals can be considered a "Virtual Market". This situation presents valuable opportunities for businesses due to the benefits they can get from social networks to promote its brands or products. In this sense, many companies involved in the food sector have recently decided to incorporate social marketing to support their commercial activities (Mata and Quesada 2014). These aspects are especially relevant for animal food products, and mainly for meat, where the possibility of interacting directly with consumers can provide great advantages to producers.

Due to their potential, many studies have been published analyzing the effect of social networks as a new e-marketing tool (Harris and Rae 2009; Rolland and Parmentier 2013; Edwards et al. 2013). Nevertheless, it is not so common to find studies addressing the use of social marketing within the food sector (Sturiale and Scuderi 2013; Khan and Boehner 2013) and depicting the types of food products that consumers would be willing to buy through social networks.

Therefore, this study aims to examine the role that social networks could play in Spain as an opportunity for agro-food small and medium enterprises. The study intends specifically to delve into consumers' willingness to buy food through social networks, identifying the types of food that could be bought. A particular interest will be devoted to foods of animal origin, due to their great relevance in the agro-food market and in the consumer diet.

This task is especially complicated if one takes into account the multiple aspects involved in consumer perception of social networks, due to the novelty of the topic (many consumers may not even have considered buying food via social networks, or they may think it is impossible) and also to the privacy and trust aspects involved. For those reasons, qualitative research has been considered a more valid approach than quantitative methods.

Qualitative research has the potential to overcome barriers to communicate with respondents and delve into aspects of their experience that can be difficult to study in a different way (Vaca and Mesías 2014). Among the different qualitative techniques, we decided to use the free listing technique, since it is a simple and powerful method that provides a huge amount of data in a little time and does not require trained facilitators or special materials (Wilson 2009). It is also a technique that fits quite well with the objectives of this research, where participants are requested to elicit (to list) different types of food according to the tasks described in the material and methods section.

Material and Methods

Free listing

Free Listing is a qualitative technique which relies on asking participants to list as many items or ideas as possible related to a certain topic (Carrillo et al. 2014). It is a technique designed to elicit data about a cultural domain -concepts or sentences that refer to a single conceptual field- (Gravlee 1998; Bernard 2006). According to Hough and Ferraris (2010), free listing can be used to gain insight into a food category and to find which foods are considered appropriate for certain uses or occasions, therefore offering an indirect approach to analyze consumer responses to specific scenarios. Free listing can also be used to understand the cultural and cognitive domains of users and other stakeholders (Wilson 2009). It can provide an insight into the attitudes of consumers, especially when they face a completely new environment such as food shopping on social networks.

Even as it is a simple tool, its potential and easy administration has made free-listing a widely used qualitative technique (Morizet et al. 2011). Specifically it has been used in research dealing with diverse food topics, such as the analysis of different categories of foods (Hough and Ferraris 2010) or to explore consumers' motives underlying food choices in different contexts (Machín et al. 2014).

Free listing provides mainly two types of information: on the one hand the frequency of the different concepts has been mentioned and on the other the average position of each concept in the list. Some researchers state that the most important result from free listing is the frequency with which each word or concept is cited (Gravlee 1998), being the item with the higher number of mentions the most relevant for respondents (Antmann et al. 2011). Other authors consider that the relevance of a category in free listing tasks is determined by both its frequency of mention and its average position on the list (Melby and Takeda 2014). Under this approach, a category is more relevant if it is mentioned by a large proportion of participants and if it is located at the beginning of their lists (Machín et al. 2014). Finally, the difference in rank between concepts

in a list can provide an insight of the association of those concepts in the mind of the respondent (Bernard 2006).

Due to the objectives of this research, it was decided to analyze just the frequency of mention. This approach is applied in other papers where the main results are the number of terms elicited and not so especially the relationship among those terms (Fiszman et al. 2014; Vidal et al. 2015).

Data collection

An online survey was used in this research for data collection. The widespread Internet access has allowed researchers to reach more segments of society, thus turning online surveying into a frequently used tool in this type of research (Carrillo et al. 2014; Vidal et al. 2015). Although online data collection has both advantages (quick and cheap procedure) and disadvantages (sample representativeness) for researchers (Wright 2005; Koutsimanis et al. 2012), it provides valid data in qualitative research, as its main aim is just for obtaining preliminary information (Eldesouky et al. 2015).

It was decided to choose social networks to spread the survey -rather than using regular emails- in order to ensure that all individuals are current users of at least one social media platform. It can, therefore, be considered that a non-probability convenience sampling has been used in this study, an approach commonly used in qualitative research when the aim is to get an insight into a specific topic. The final sample consisted of 209 Spanish people (57% female, 43% male; 41% in the age level of 18-35 years old, 37% aged 35-50 and 22% more than 50 years old), all of them actual users of social networks.

The online survey was developed during January 2016 using Google Forms – online (www.docs.google.com). A pilot questionnaire was administrated to 15 consumers (not included in the final sample) to revise the validity of questions in the questionnaire. Finally, a link to the questionnaire was sent to respondents together with an introductory message.

Participants completed two free-listing tasks related to types of food they would/would not buy on social networks. They were given the following specific instructions: "Although at present is not common to purchase directly on social networks, some platforms are developing new tools that would give you the opportunity to buy directly from the social site. All the process, from purchasing to payment would be carried out from the same app". They were then asked, first to list all the food they would buy on social networks, and secondly, to write down a list of all the food they would not buy through these channels. The inclusion of two questions with opposite meanings was considered as the best way to uncover not only the products that participants thought were appropriate for this type of marketing, but also those other that could elicit mixed feelings among them.

Data analysis

Once the data were collected they were analyzed using content analysis (Stewart and Shamdasani 1990), a research technique used to make replicable and valid inferences from texts or other meaningful materials (Krippendorff 2004). In order to carry out this task, the answers were categorized using as a basis the food classification found in online pages of major Spanish supermarkets, i.e. Mercadona and El Corte Inglés.

Given the qualitative nature of the study, and to improve the validity of the results, the analysis was performed by triangulation, a procedure that is often used in qualitative studies (Antmann et al. 2011). This methodology aims to improve the validity of the results by analyzing them from several points of view (Patton 1999). Consequently, each of the authors developed his/her analysis, after which a meeting of the research team was conducted to search for consensus between the different classifications and categories generated.

Initially, a search for recurrent terms within each question was developed. Subsequently, those terms with similar meaning were grouped into categories. Products were grouped according to the main categories and subcategories used by supermarkets, but also taking into consideration food concepts mentioned by the participants. Frequencies of each of the products listed by respondents were counted separately. The frequencies in every category were determined by counting the number of consumers that used the same word or an equivalent term. Finally, percentages of each category/concept were calculated by dividing the total of frequencies of each category/subcategory or concept between the total of terms mentioned by respondents.

In accordance with the criteria often used in qualitative research, categories that were mentioned by at least 5% of respondents were considered for analysis (Machín et al. 2014; Vidal et al. 2015).

Cluster analysis

One of the most remarkable features of social media is that it gives producers the ability to identify consumers' profiles, thus allowing a differentiated interaction with their potential customers. In this sense, identifying potential segments of consumers who are interested in certain types of food could be of great interest.

Therefore, a K-means cluster analysis has been applied using IBM SPSS statistics ver. 21 to allow a deeper study of consumers' preferences by identifying homogeneous subgroups of consumers which could show different preference patterns towards social media food purchasing.

The inputs used were the socio-demographic variables (age, gender and study level), a variable of usage intensity of web 2.0 applications (linked to frequency habits and the number of accounts belonging to every respondent) and another reflecting consumer willingness to buy food online (directly on social platforms).

A final solution with a three-cluster classification was provided, chosen in the light of subgroups size and the statistical significance. ANOVA indicated that the clusters differed significantly ($p < 0.05$) with respect

to most of the input factors, thus indicating the validity of the results. Once segments were determined, the qualitative analysis explained previously was applied again to each cluster. **Figure 1** describes the methodological procedure followed in this research.

RESULTS AND DISCUSSION

Free listing test

Table I shows the food products that consumers stated they would buy via social media in the free listing task, grouped into the different supermarket categories. As can be observed, cupboard food is the food group most frequently mentioned by respondents with about 37% of total answers, followed by beverages and drinks with 18%.

Table I. Products that consumer would buy through social networks (Productos que el consumidor compraría através de redes sociales).

	Groups (% mention for each category)	Products	Percentage of mention*
Foods of animal origin	Dairy Products (7.3)	Milk and yoghurts	3.8
		Cheeses	3.5
	Fish (6.5)	Preserved fish	5.6
		Fresh fish	0.9
	Processed meat products (6.3)	Processed meat products	3.9
		Cured ham	2.4
Foods of vegetal origin	Food Cupboard (37.2)	Jam, honey and sugar	6.2
		Rice, legumes and pasta	8.6
		Cereals and flours	5.3
		Oils	5.9
		Spices, sauces and salt	4.4
		Coffee and tea	2.7
		Processed vegetables	2.5
		Soups and ready meals	1.6
		Water	0.9
	Drinks/beverages (18.1)	Juices & soft drinks (sodas)	8.6
		Wine	8.6
	Bakeries/ bread (7.7)	Bread and bakery	7.7
	Fruits and vegetables (5.9)	Fruits and vegetables	5.9
		Nuts	3.8
	Appetizers (5.6)	Appetizers and snacks	1.8

*Food items mentioned by less than 5% of participants have been removed, unless they belong to a bigger group in which the total percentage is higher than this limit.

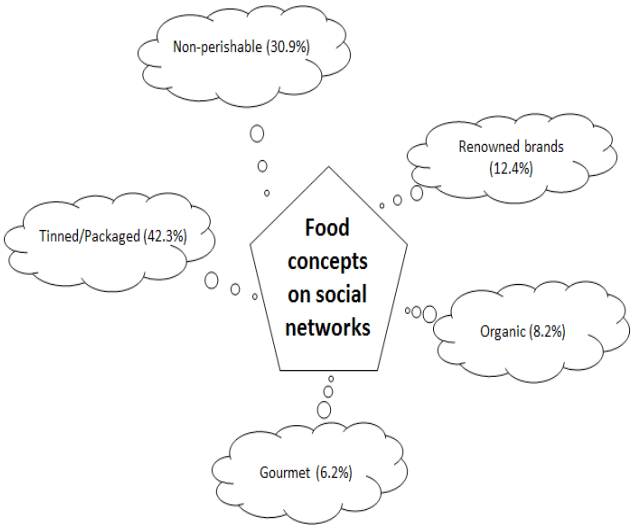

Figure 2. Food concepts that participants indicated they would buy through social networks (% mentions for each category) (Conceptos alimenticios que los participantes indicaron que comprarían a través de las redes sociales (% menciones para cada categoría).

The high willingness of consumers towards such types of food products can be linked to their intrinsic characteristics: dry, canned or bottled food, mainly non-perishable and long-lasting. These products are characterized by long shelf life and airtight containers that would ensure their good conditions for consumption after delivery. So that consumers would have no fears about freshness or refrigeration conditions when purchasing in an online environment. Results regarding beverages (sodas and wine) are in line with those of Spain, where wine was the second most frequently sold food product (25%) through online channels (MAGRAMA 2013). Similarly, Grunert and Ramus (2005) and Phau and Poon (2000) indicated that wine was one of the most likely products to be bought on the internet.

Regarding the foods of animal origin, it can be appreciated that the willingness to buy them through social networks is much lower than that for vegetable-based food. Although the three groups show similar frequencies of mention, it is noteworthy that the most mentioned product is "preserved fish", a food that shares the aforementioned characteristics of non-perishability and long life. With respect to fresh food of animal origin, we can see that fresh fish is one of the less mentioned products, while meat is not even mentioned. These results are in line with other studies (MAGRAMA 2013) where fresh fish and meat were the least-sold food products through online channels in Spain.

Although the participants had been asked to list the foods they would buy via social networks, almost one fourth of the answers (23.3%) made reference to food concepts, and not really to food. **Figure 2** shows the food concepts elicited by the participants as suitable to be bought through social networks.

As expected, the concepts showed in **Figure 2** mainly refer to the non-perishable character of the

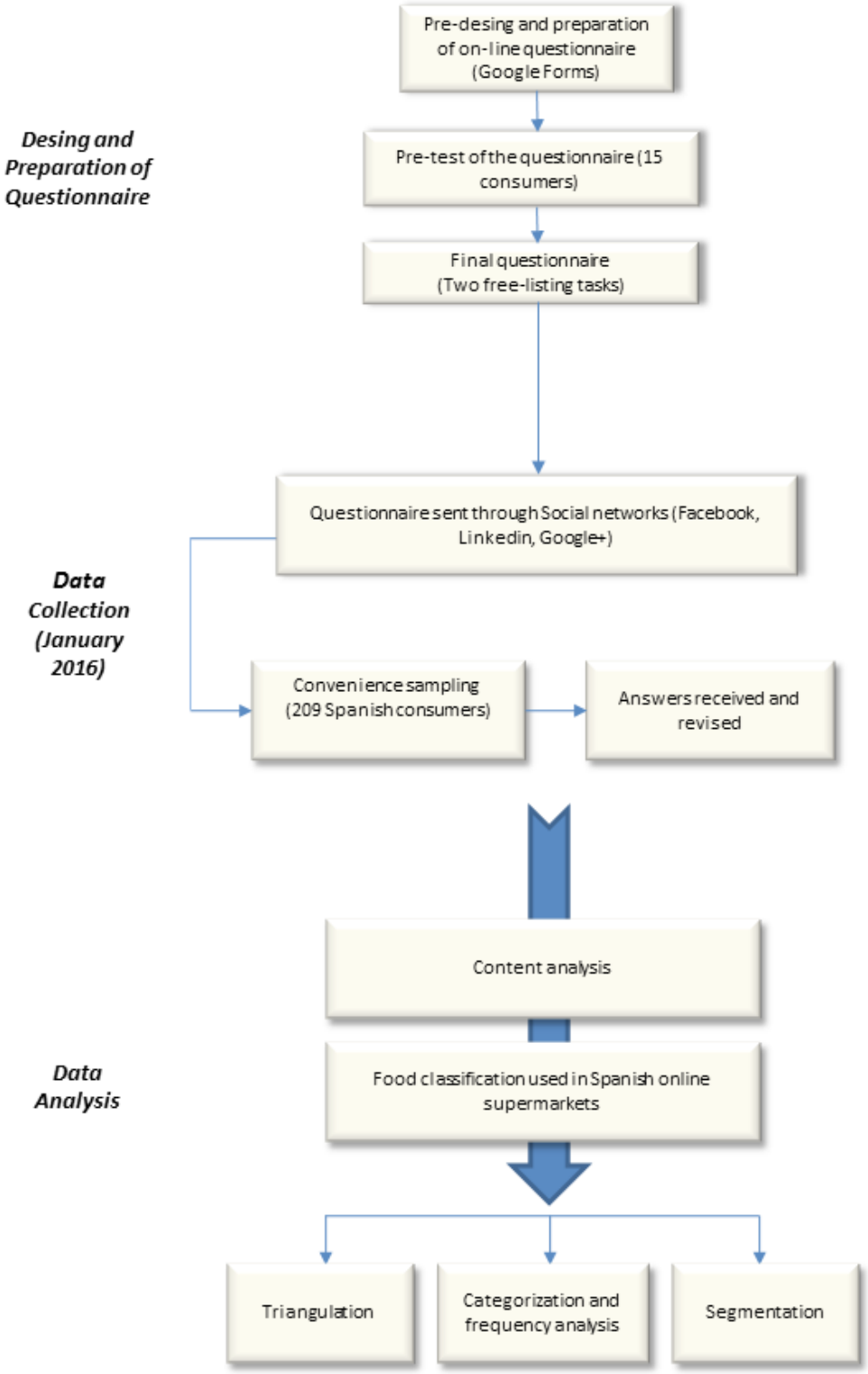

Figure 1. Methodological procedure (Procedimiento metodologico).

Table II. Products that participants would not buy through social networks (% of mention for each category) (Productos que los participantes no comprarían a través de las redes sociales (% de mención para cada categoría).

	Group (% of mentions for each category)	Product	Percentage of mention*
Foods of animal origin	Processed meat products (23.9)	Processed meat products	23.9
	Fish (22.6)	Fresh fish	22.6
	Dairy products (11.4)	Milk yoghurts	10.7
		Cheeses	0.7
Foods of vegetal origin	Fruits and vegetables (35.8)	Fruits and vegetables	35.8

*Food items mentioned by less than 5% of participants have been removed, unless they belong to a bigger group in which the total percentage is higher than this limit.

food, with the most mentioned being "tinned/packaged foods" followed by "non-perishable foods". However, **Figure 2** also presents two interesting aspects, such as "renowned brands" and "organic foods". These findings could indicate that some consumers, who look for specific products (certain brands, organic products, perhaps not always easy to find in their usual marketing channels) may be open to consider buying food via social platforms. In the case of organic food, various researchers stated that its limited availability is one of the main determinants that drive consumers to buy online (Ramus and Nielsen 2005). It is therefore noteworthy the potential role that social networks could play as an alternative short supply chain within the Spanish organic market, where organic foods are mainly marketed using direct marketing or via specialised shops.

It was considered that the elicitation of terms from the previous question could not reveal all the dimensions involved in consumers' attitudes and perspectives, and therefore another question was posed asking participants to list all the foods they would not buy through social networks **(Table II)**.

Table II shows some interesting aspects, with "fruits and vegetables" being the most mentioned group of foods, and somewhat shockingly, "processed meat products" being the second. Although processed meat products were among the foods of animal origin most cited in **Table I**, they are also mentioned -although with a negative intention- here. Nevertheless, and considering that the number of respondents to both questions was similar, it can be deduced that "processed meat products" has more negative than positive connotations.

Another interesting finding is the high percentage of mention for "fresh fish", consistent with the highly perishable nature of these products. Nevertheless, it is noteworthy the lack of negative associations with "fresh meat", which is not even mentioned. This bias can be explained by the long experience of meat producers with online sales, which can have increased consumers' familiarity with web sales of meat.

Another result that draws attention is that of dairy products, with more than 11% of mentions. The result is consistent with those found by Phau and Poon (2000) where milk products were categorized as one of the least likely to be bought over the Internet.

Consumer segmentation

The final solution of the applied K-means cluster analysis produced three well defined clusters which can be defined as follows:

Cluster 1 – (Mature-older people with high willingness to buy). This cluster is the smallest group, including only 24.5% of the respondents. It shows a high willingness to buy food online and includes those people with moderate intensity of social networks usage.

Cluster 2 – (Younger consumers with a moderate willingness to buy). It includes 31 % of respondents and displays the largest percentage of younger individuals with the highest presence on social media and moderate willingness to buy food online.

Cluster 3 – (Highly educated, middle-aged and unwilling to buy). This is the biggest group and includes 44.5% of the sample. It presents the highest percentage of middle-aged and highly educated people with the lowest willingness to buy and moderate intensity of use of social applications.

Once the clusters were defined, the analysis was repeated within each segment in order to look for differences that could be associated with their underlying characteristics. **Table III** shows, per cluster, the categories of food products that the participants stated they would buy via social media.

Table III shows some interesting comparisons among the consumer segments, although some results were also expected, such as the importance of the food cupboard category, which is the most mentioned group in all the clusters.

Some of the observed differences can be related to the demographic structure of the segments, such as the much higher frequencies of mention of Cluster 1 for "coffee and tea" and of "wine". According to MAGRAMA (2015) and MERCASA (2015), the consumption of coffee and teas in Spain is higher in those households consisting of older people, and similar situation is found for wine, a product where consumption is linked to tradition and that has seen strong declines in consumption among younger consumers.

The case of appetizers is also interesting, and especially that of "nuts", where the high percentage of mentions in cluster 2 (almost 10%) may be consistent with the attributes and the perceived image of these foods as an energy food consumed mostly by young people.

Regarding the foods of animal origin, it can be observed that the behaviour of the three groups is mainly associated with the willingness to buy through social networks, as those unwilling to buy (cluster 3) have only indicated long lasting or unperishable foods, while consumers in clusters 1 and 2 have also mentioned dairy products (they are the most mentioned category in cluster 1) and even fresh fish.

Table III. Frequencies of food products that would be bought via social networks for each cluster* (Frecuencias de productos alimenticios que se comprarían a través de redes sociales para cada cluster *)

	Group	Product	Group (1). Mature-older people with high willingness to buy	Group (2). Younger consumers with moderate willingness to buy	Group (3). Highly educated, middle-aged and unwilling to buy
Foods of animal origin	Processed meat products	Processed meat products	5.7	7.3	5.6
		Cured ham	0.7	3.7	6.5
	Fish	Preserved fish	6.6	4.1	10.7
		Fresh fish	0.7	0.0	0.0
	Dairy products	Milk and yoghurts	6.4	1.2	0.0
		Cheese	2.8	6.1	0.9
Foods of vegetal origin	Cupboard items	Jam, honey and sugar	7.1	3.7	3.2
		Rice, legume and Pasta	7.1	8.5	16.1
		Coffee and tea	6.4	1.2	0.0
		Cereals and flours	2.8	7.3	3.2
		Processed vegetables	3.3	2.0	5.4
		Spices, sauces and salt	2.8	4.9	3.2
		Oils	9.2	2.4	9.7
		Soups and ready meals	2.1	1.2	0.0
	Appetizers	Nuts	3.5	9.8	0.0
		Appetizers and snacks	1.4	2.4	3.2
	Drinks/beverages	Water	2.1	0.0	0.0
		Juices and soft drinks (sodas)	5.7	11.0	12.9
		Wine	13.5	9.8	3.2
	Fruits and vegetables	Fruits and vegetables	2.1	7.3	3.2
	Bakeries/ bread	Bread and bakery	6.4	2.4	12.9

* Food items mentioned by less than 5% of participants have been removed, unless they belong to a bigger group in which the total percentage is higher than this limit.

Finally **Table IV** shows per each cluster the food products that the participants would not buy on social networks.

Results in **Table IV** are in line with those shown in **Table II**, with "fruits and vegetables" and "processed meat products" being the most mentioned groups of foods, a trend that is repeated along all the clusters with just slight differences. Fresh fish also appears again, with high frequencies of mention in all the consumer groups. It is therefore clear that, despite socio-demographic or behavioral differences; these categories are generally rejected regarding purchasing via social media.

However, and within such important categories for the Spanish agro-food sector as that of cured ham and cheeses, both products present a certain potential, with higher percentages of positive than negative mentions. If we also consider that both products are heavy -at least in their full-piece size- and have high prices per kg, they can be among the most demanded online food-products (Campo and Breugelmans 2015)

It is also noteworthy the discrepancy between Cluster 1's highest willingness to buy food on line and its lowest willingness to buy fresh and perishable food online, as can be stated from **Table IV** (Cluster 1 showed the highest frequency of mention for fruit and vegetables and fresh fish). This fact can be explained by the characteristics of the cluster, with mature-older people who had been taught for years to look for signs to distinguish rotten fish or overripe fruit and therefore are not willing to buy a product they cannot test before.

CONCLUSIONS

Social media represents a bi-directional communication line that could provide an interactive relationship among businesses and consumers offering

some sort of dialogue prior, after or even during the purchasing process. It also encourages information co-sharing, and links groups of consumers with each other, allowing the exchange of views among individuals with common interests. It is therefore remarkable the potential role that social networks could play as an online direct sale platform in the food sector. The use of free-listing has provided a useful approach to gain an insight into consumer's willingness to purchase food through social networks, allowing to define those food products most prone to be bought via this new and promising supply chains. Additionally, the methodology used in this study could be easily used by agro-food enterprises as a cheaper and faster way to undertake further and wider research.

One of the more significant findings that emerge from this study is that consumers would be willing to buy a wide range of food and beverages, among which stand out long lasting and processed foods, such as legumes, rice, pasta, jam, honey, sugar, preserved fish, etc... Potential for the marketing of foods of animal origin through social networks in Spain has been found, although consumers' predisposition focuses on processed animal foods, such as preserves or dairy products, which is related to the low perishability of foodstuffs and their greater ease of transport. However, there is also an opportunity for high-perishable foodstuffs in which consumers are very susceptible to information on freshness (e.g. in meat, animal breeding information, date of slaughter, etc.).

These findings might open new possibilities for food businesses, especially for SMEs, to develop a new electronic shopping channel enabling them to increase sale levels of these products and, therefore, increase profitability and reduce costs.

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