Short Food Supply Chains: rebuilding consumers’ trust

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Abstract

Whereas population is showing increasing distrust rates in the regular agri-food system, Alternative Food Networks (AFN) are gradually gaining space. This paper analyses the role of a specific kind of AFN, Short Food Supply Chains (SFSCs) and its contribution to the restoration of consumers’ trust in Spain. An online survey (n= 423) focus on trust and concern over food safety was conducted. The survey was addressed to very concerned and active consumers, which are interesting because they represent a powerful consumers’ profile from the policies point of view. Principal Component Analysis (PCA) studied consumers’ preferences on the different SFSC categories. This paper draws a map that signals which of SFSC attributes (such as labelling, common values or direct contact with producers) are more relevant in order to build consumers’ trust. In addition, this paper offers a classification of SFSC consumers according to their priorities. The information provided by the article offers ideas to policy makers and producers for designing their marketing strategies according to different consumers’ demands.

Keywords: Short food supply chains, Alternative Food Networks, Farmer markets, Consumer, Trust.

1. Introduction

Nowadays it is not possible to have food quality information on all the elements needed to make most certainly safety decision. The high level of complexity (number of stakeholders and their relationships) in conventional agri-food system hampers the access to information of production processes (Yu and Nagurney, 2013). This fact triggers a situation of asymmetry in which producers could have more information than consumers (Dierks, 2005). In absence of sufficient information, consumers need trust to simplify food-related decision-making processes and minimize the risks associated to feeding (Adler et al., 2003; Ritenhofer and Klitgaard, 2015). In other words, trust can be used as a substitute of full knowledge (Grebitus et al., 2015). In this way, the existing agro-industrial model is generating detachment and mistrust among consumers (Allen et al., 2003; Cleveland et al., 2014; Giampietri et al., 2018; Kriege-Steffen et al., 2010; Levkoe, 2015; Pejic et al., 2013). The occurrence

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of food safety scandals, like the bovine spongiform encephalopathy (at the beginning of the 21st century) or the episode of eggs contamination in Europe (August, 2017), serves to further damage public trust on food chains (Calle et al., 2012; Carbone et al., 2007; Ding et al., 2013).

This growing mistrust in conventional agri-food system is being accompanied by the expanding of ethical concerns among some consumers (Dowd and Burke, 2013; Giampietri et al., 2018). Food consumers’ value systems plays a key role in consumers’ choice (Grebitus et al., 2015), and increasing sectors of society are including a “responsibility factor” in their consumption patterns due to environmental, animal compassion or social equity reasons (Casia et al., 2012). For these sectors of society, mega-farms, the high levels of delocation of production and consumption sites, or other attributes of industrial agri-food systems, are at odds with their ethical concerns (Higgins et al., 2008).

In this context, Alternative Food Networks (AFN), as Short Food Supply Chains (SFSCs), are emerging as an answer to consumers’ concerns and the lessening of trust on agri-food system (Torquati et al., 2016). Although there are different typologies of SFSCs, European Union characterizes this kind of AFN in the Regulation (EU) No 1305/2013. SFSCs shall cover only supply chains involving no more than one intermediary between farmer and consumer (article 35.2d), and the geographical distance from production, transformation and distribution sites to the final consumer is also limited.

1.1. Trust in the agri-food system

Trust is an essential element for the good development of commercial relationships. There are several works about trust definition, Morgan and Hunt (1994, p. 23) define it “as existing when one party has confidence in an exchange partner’s reliability and integrity”. McKnight and Chervany (2001) include a review of trust definitions from different approaches (psychology, social psychology, sociology), all of them turn around the idea of trust as the belief that a voluntarily accepted duty will prevail, ensuring that no party exploit the others’ vulnerabilities, under conditions of risk and interdependence. Mooradian et al. (2006) define trust as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al., 1995, p. 712).

Farmers need to develop trust-based relationships with their customers in order to create a better market access for their products (Roy et al., 2017). In the past, knowledge sharing and trust were built and maintained through direct contact and a regular relationship between producer and consumer. Along with the increase in complexity of production and distribution systems, consumers placed trust in other stakeholders or sources of information.

The various definitions of trust have certain elements in common, as the existence of a risky or complex context, uncertainty and dependence on other people (Coveney et al., 2012; Dierks, 2005). In the food chain, trust is not built on specific products, but rather on the human agents responsible for food production, processing, control and commercialization (Kjærnes, 2014). Social interaction and face-to-face relationships enable and help to consolidate deep trust (Roy et al., 2017).

The published literature shows a collection of factors used by producers and consumers to generate and maintain trust. The most frequently quoted factor in generic literature about trust-building is integrity. Feeling that the people we are making business with are honest and will maintain their promises, and that they care about the others’ well-being, is an essential factor in trust-building. Other frequently cited factors are openness, positive previous experiences, reputation and tradition, personal bonds, good treatment and producers’ professionalism (Table 1). Direct contact between actors let to evaluate these elements and to build trust.

The process of trust building can be divided on two phases: a first one of bond generation or “Initial trust” (McKnight and Chervany, 2001) and a second one of confidence preservation. In the first phase, producer’s integrity and reputation are among the major influencing factors. In
Table 1 - Database with information on studies of food trust generators among consumers and on studies of SFSCs advantages.

<table>
<thead>
<tr>
<th>Trust generators</th>
<th>A sample of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity and reputation: perception of honesty and responsibility towards customers</td>
<td>Fritz and Fischer, 2007; Lombart and Louis, 2014; McKnight and Chervany, 2001; Migliore et al., 2015; Pieniak et al., 2007</td>
</tr>
<tr>
<td>Openness: transparency, traceability, information access</td>
<td>Pejic et al., 2013; Pieniak et al., 2007</td>
</tr>
<tr>
<td>Positive previous experiences</td>
<td>Fritz and Fischer, 2007; Jansen and Hamm, 2011</td>
</tr>
<tr>
<td>Personal bonds</td>
<td>Fritz and Fischer, 2007</td>
</tr>
<tr>
<td>Good customer service and kindness</td>
<td>Fritz and Fischer, 2007</td>
</tr>
<tr>
<td>Professionalism: perception of knowledge and experience possession</td>
<td>Fritz y Fischer, 2007; Jansen and Hamm, 2011; Lombart and Louis, 2014; McKnight and Chervany, 2001; Pieniak et al., 2007</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SFSC advantages</th>
<th>A sample of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher transparency and traceability</td>
<td>Lanfranchi and Gianetto, 2015</td>
</tr>
<tr>
<td>Rural development, employment generation, costs reduction and increase of farmers’ income</td>
<td>Carbone et al., 2007; Kneafsey et al., 2013; Lanfranchi and Gianetto, 2015; Mundler and Laughrea, 2016</td>
</tr>
<tr>
<td>Higher quality foods</td>
<td>Aubry and Kebir, 2013; Carbone et al., 2013; Kneafsey et al., 2013</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>Lanfranchi and Gianetto, 2015; Mundler and Laughrea, 2016</td>
</tr>
<tr>
<td>Lower prices</td>
<td>Carbone et al., 2013; Lanfranchi and Gianetto, 2015</td>
</tr>
<tr>
<td>Direct contact</td>
<td>Aubry and Kebir, 2013; Carbone et al., 2013; Casia et al., 2012</td>
</tr>
</tbody>
</table>

the second phase, trust is under constant evaluation, and openness is among the most influencing factors (Table 1). The need for face-to-face interaction is often perceived as a prerequisite for diffusion of knowledge, because it allows for trust building, which in turn is critical to share knowledge. “Knowledge sharing” is defined as the provision or receipt of task information, know-how and feedback regarding a product or procedure (Mooradian et al., 2006). Absorption of knowledge requires time, therefore, spend time and meeting places would foster knowledge sharing (Ipe, 2003). The amount of information available to assess another’s abilities, intentions, and behaviors within a relationship provides more opportunity for people to develop a shared vision and language and so increase trust in one another’s competence (Abrams et al., 2003). Establishing communication mechanisms in supply chains increases trust building and knowledge sharing (Cheng et al., 2008).

1.2. Short Food Supply Chains as trust rebuilders

Consumption is a conscious act of exercising choice and, as a consequence, the consumer actively participates in the creation of a fairer society (Schifani and Migliore, 2011). SFSCs present several attributes that place them in a favourable situation to regenerate the public trust that regular agri-food systems are losing (Table 1). First, SFSCs offer consumers what is lacking in conventional agri-food systems: closeness and transparency. Second, SFSCs show a better performance in most of the areas related to economy, the environment, ethics, health impacts and social consequences, such as biodiversity conservation, nutritional value or producers’ income (Schmitt et al., 2017). Following the means-and-chain theory, consumers would make their choices driven not solely by products’ concrete attributes, but also by the final values the products can help to achieve (Gutman, 1982).
In consequence, SFSC products would be better placed to respond to several consumers’ personal concerns. Third, a new kind of consumer is asking for a more central position in food production and distribution processes, along with new forms of cooperation between farmers and consumers (Bloemmen et al., 2015; Hayden and Buck, 2014; Moschiz, 2008; Nost, 2014). The prototype of this new kind of consumer is the prosumer, which corresponds to the most frequent type consumer in SFSCs. The term prosumer is generally attributed to Alvin Toffler. He proposes that “contemporary society is moving away from the aberrant separation of production and consumption and towards a ‘third wave’ that, in part, signals their reintegration in the rise of the prosumer” (Ritzer and Jurgenson, 2010). However, the demand for a higher implication in agri-food related processes is not restricted to prosumers, as increasing sectors of society are motivated for these commercial interactions (Pasucci and de-Magistris, 2016).

This situation represents a window of opportunity for SFSCs to strengthen their position in the agri-food system. Indeed, some of SFSC attributes are already being used by farmers in their strategies to face agri-food system challenges, such as the establishment of direct relationships between producers and consumers, and the valorization of regional products (Schermer et al., 2010). For the last few years, SFSCs have been spreading in Europe, although their impact remains limited (EIP-AGRI, 2015). One of the best opportunities for SFSC rise is the capture of consumers’ vanishing trust, but this also remains a major challenge for producers. Further research to cast some light on the different processes to build consumer trust in SFSCs is needed.

The objective of this study was to analyse the relationship between trust and SFSCs, and to identify consumers’ preferences on SFSCs’ attributes and typologies. The final goal was to map consumers’ demands, so they can be considered in the definition of SFSC promotion policies.

2. Materials and methods

A survey was conducted online and distributed among the Facebook followers of the Spanish Consumers Organization (OCU). The proliferation of social media applications such as online communities, social networking sites or blogs gives the public new means for receiving, and, more importantly, providing information (Elghannam et al., 2017). OCU is the most important Spanish consumers association. OCU develops a very important activity in mass media and social networks, with more than 400.000 followers all around Spain. Another recently published work (Cruz Macein and Benito Barba, 2018) highlighted the interesting profile of these followers. Facebook OCU followers are a more open profile than OCU members. The latter pay to get some specific information and services. However, the first ones just follow some open access information and they do not pay any fee. These followers are not Spanish average consumers, they are warier consumers and they represent one of the most important potential market niche for SFSCs in Spain. Currently, SFSCs are supported by activist consumers with different strong motivations (environment, rural development, health…), however, the expansion of this market niche is very limited. Next programming period for Common Agricultural Policy (2021-2027) will emphasize SFSCs and other market niches are necessary in order to scale up SFSCs. These wary consumers can be a good option. They have a very high willingness to buy in SFSC, however some barriers are hinder them from participating more often in SFSCs.

A brief post about SFSCs and the survey was added in the Facebook OCU profile. This post included a link to the online survey. A total of 423 responses were collected from all around Spain during the months of August and September 2017. Previously, a pilot test survey was performed with consumers (n= 15) in July to close the questions and minimized the biases. We are dealing with convenience sampling focused on OCU followers. They are aware consumers and they represent one of the most important potential market for SFSCs in Spain (Cruz Macein and Benito Barba, 2018). Profile of respondents has been tested with OCU social network managers.

The survey is divided in two blocks with ten main closed questions, some of them multi-questions (Annex 1). The first block perceptions with regard to food supply chain. This block includes...
questions about concern and information about food. In addition, there are questions about drivers of trust on the different food chain stakeholders. The second block is focused on SFSCs. It includes questions about willingness and reasons to buy in different SFSCs, and barriers and drivers for buying in SFSC.

The survey was designed using a 0 to 10 rating scale classification since it allows factorial techniques such as Principal Components Analysis (PCA) (Abascal and Diaz de Rada, 2014). An 11-point scale is able to get a much broader spread of the results yielding better predictive analysis. On the other hand, Five-point, seven-point and 10-point scales are relatively easy to use. Although shorter rating scales are rated as quicker to use, scales with 10 and 11 alternatives are much preferred to express respondent feelings adequately (Taherdoost, 2019).

Descriptive statistics and bivariate correlations were used. For all analyses, the level of significance was set to <0.05. Exploratory factor analyses, PCA, were performed. In the extraction method by principal components, the factors obtained are the autovectors of the matrix of rescaled correlations. The statistical contrasts used to evaluate the goodness of the fit of the factorial models formulated were: the mean of the KMO (Kaiser-Meyer-Olkin) measure and Bartlett’s test of sphericity. In this study, a factorial PCA was carried out by a Varimax rotation with Kaiser normalization.

Initially, all independent variables were analyzed using PCA as a data reduction technique. Finally, PCA was focused on two key issues getting a better simplified structure. These issues were defined as SFSC form and SFSC content or core, where SFSC form refers to the existence or absence of intermediary agents, and SFSC content refers to the nature of the warranty for food safety.

3. Results

3.1. Consumers’ trust on food supply chains

Results showed that surveyed consumers are concerned about food safety (8.3/10) and, at the same time, they considered that they do not have enough information about the food products they acquire (5.1/10). Concern about food safety was associated to a lack of information
In this situation, trust plays a key role in the relationship between consumers and food producers. The main trust drivers (Figure 1) indicated by this sample were information availability (8.2/10) and producers’ perceived honesty. Surveyed consumers prefer information from consumers associations (7.7/10), research centers (7.4/10), health professionals and close relationships. On the contrary, they place little trust on producers (5.4/10) or retailers. Supermarket had the worst rating in consumers’ trust (4.2/10).

Interestingly, the low punctuation for producers as trust deservers was accompanied by the consideration that producers are good professionals (7.3/10). This can be explained by the fact that consumers perceived that producers prioritise their profits rather than consumers’ health (6.5/10) and that they are unconcerned about environmental issues (3.9/10).

On the other hand, health marks (7.4/10) and quality labeling (6.6/10) were important instruments in the process of trust building. These factors offer relevant information about food safety to consumers.

### 3.2. Consumers’ perception about SFSCs

The survey indicated that just 34% of respondents buy in any kind of SFSC, although an important percentage of surveyed consumers (69%) were willing to do so. This tendency increases with higher levels of concern about food safety and health risks (C.Pearson=.183; Sig. bilateral=.001). Preferred SFSC systems were producers organized markets (68%) and direct purchase at the farm (67%) (Table 3).

The main reason exposed by surveyed consumers to acquire SFSC products was obtaining higher quality products. Consumers’ interest to have a direct contact with farmers and supporting rural development were also important factors in determining SFSC choice (Figure 2).

On the other hand, the main barriers for consumers to access SFSCs were the difficulties to find trustworthy producers and the higher efforts associated to this option. It is easier to buy in a supermarket or close to the home than in SFSCs (Figure 3).

### 3.3. Information exchange and intermediaries in SFSCs

Information exchange between producers and consumers is a key issue in trust building processes, and SFSCs provide easier ways for it. Direct contact is a common practice in SFSCs, but...
Table 4 - Total variance explained.

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>2.422</td>
<td>34.600</td>
</tr>
<tr>
<td>2</td>
<td>1.878</td>
<td>26.824</td>
</tr>
<tr>
<td>3</td>
<td>.827</td>
<td>11.819</td>
</tr>
<tr>
<td>4</td>
<td>.610</td>
<td>8.708</td>
</tr>
<tr>
<td>5</td>
<td>.486</td>
<td>6.940</td>
</tr>
<tr>
<td>6</td>
<td>.458</td>
<td>6.548</td>
</tr>
<tr>
<td>7</td>
<td>.319</td>
<td>4.561</td>
</tr>
</tbody>
</table>

Seven variables have been reduced in three factors (73.2% of cumulative variance explained). Each component focuses on a kind of relationship between producers and consumers.

Table 5 - Component Score Coefficient Matrix.

<table>
<thead>
<tr>
<th></th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to participate in a collective food buying group</td>
<td>.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willingness to buy directly to the farmer with a periodic contract signature</td>
<td>.780</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willingness to buy directly in the farm</td>
<td>.766</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust on supermarket</td>
<td></td>
<td>.813</td>
<td></td>
</tr>
<tr>
<td>Trust on retailer</td>
<td></td>
<td>.756</td>
<td></td>
</tr>
<tr>
<td>Trust on family and friends</td>
<td></td>
<td>.708</td>
<td></td>
</tr>
<tr>
<td>Willingness to buy in farmer markets</td>
<td></td>
<td></td>
<td>.678</td>
</tr>
</tbody>
</table>

This matrix highlights only the highest scores for each component. It clarifies how each component has been built.

SFSC definition opens the way for the participation of intermediary agents. However, the direction and magnitude of their influence remains to be assessed. Conducted PCA included variables about consumers’ willingness to buy in different SFSCs with direct contact and their trust on a number of intermediaries.

PCA clustered variables in three components (KMO= 0.7). Component 1 grouped those variables associated with direct contact (“Willingness to participate in a collective food buying group”, “Willingness to buy directly to the farmer with a contract signature”, “Willingness to buy directly in the farm”). This component reflected the willingness of a strong reconnection with farmers. It explains 34.6 of total variance. On the other hand, Component 2 clustered variables related to trust on different intermediaries (“Supermarket”, “Retailer” and “Family and friends”). This component does not focus on farmers. It focuses on intermediaries. Finally, component 3 differentiated farmer markets as a special element. This component is a mix of component 1 and 2. It focus on a direct relationship with farmers but in a market.

3.4. SFSC content or core: food safety certification in SFSCs

Food safety is the first driver for SFSC products consumption. Labelling or certification offer warranties about the quality of food, especially when consumers do not meet producers in person. However, the role of labelling and certification when direct contact occurs remains to be evaluated. Next PCA focused on the content of the relationship between producers and consumers. It included variables about trust on several certification systems, and at the same time it analysed consumers’ perception of farmers’ behaviour (KMO=0.7).

Component 1 (trust on research centre, trust on quality label, trust on health mark) included
variables focused on the certification approach. That is third party certification (public institutions, NGOs or certification companies). Farmers are not the main reference from the food safety point of view. It explained 34.3% of variance. On the other hand, Component 2 (farmers’ concern about food safety and environment) clustered consumers’ perception about producers’ behaviour. This component pay attention on farmers as a reference for food safety.

4. Discussion

In the light of these results, Spanish consumers are significantly concerned about the quality of food. Additionally, surveyed consumers show detachment and mistrust in conventional agri-food systems, as observed in Italy, Canada or Australia (Giampietri et al., 2018; Levkoe, 2015; Roy et al., 2017). On the other hand, this survey confirms the narrow relationship between consumers’ perception about food safety and the lack of information, as observed in previous studies (Calle et al., 2012; Carbone et al., 2007; Dierks, 2005; Ding et al., 2013). Information exchange and honesty are signalled as key factors in trust-building processes, as found by Migliore et al. (2015). In this sense, as showed in previous research, these results also highlight the relevance of trust in farmer markets, as it has been proven that it can be an effective substitute for full knowledge (Grebitus et al., 2015).

Although this study shows high levels of interest about SFSCs, a very small percentage of consumers use this option to acquire their food products. SFSCs have the potential to continue growing, but important barriers difficult their development, as the Agricultural European Innovation Partnership (EIP-AGRI) concludes (EIP-Agri, 2015).

The first barrier for SFSCs in Spain is the distance between producers and consumers. Consumers do not meet trustworthy farmers as a consequence of the absence of close links between rural and urban areas, as well as current leading role of supermarkets in the food chain.
In addition, consumers’ perception about farmers highlights some relevant differences with their values. From the point of view of consumers, health, and environment are not too much important for farmers. Any strategy for SFSCs sprawl needs to be preceded by the rapprochement of food producers and consumers, as it has happened in Canada or California (Cleveland et al., 2014; Levkoe, 2015). The second major barrier for SFSCs are logistics. The lower level of organization needed to acquire food through conventional channels, and the higher presence of supermarkets and conventional food stores in urban areas, makes it easier to buy in these establishments than through SFSCs. It would be necessary to bring consumers closer to SFSCs. The farmer markets are the best valued option. Intermediary agents play a conflicting role in the process of surpassing SFSC barriers. On the one hand, they improve commercial logistics, which facilitates the acquisition of SFSC products. On the other hand, they reduce the communication between consumers and producers. First PCA shows this reality, as it separates those factors associated to direct contact from those factors related to consumers’ trust on intermediary agents. These results showed that, while direct contact with food producers is preferred, or even critical, for a segment of consumers, another segment of the population accepts the involvement of intermediary agents. These contrasting preferences define the two extremes of the range of SFSC modalities.

Farmers’ markets are a special case within SFSCs, as they facilitate logistics for consumers, while allowing direct contact with food producers. For this reason, farmers’ markets receive a greater variety of customers than any other kind of SFSCs. Survey results showed the relevance of what Casia et al. (2012) named as CCTI stimulus intangibles: customer, company, territory and interaction. This theory suggests that support to rural development and direct contact with the farmer are important incentives to choose SFSCs. Shared values between the consumer and the producer are also a key aspect for SFSC choice (Adler et al., 2003). Another predictor of sustainable food preference is the importance of health and ethical values (Dowd and Burke, 2013). However, as observed in other studies (Aubry and Kebir, 2013; Carbone et al., 2007; Kneafsey et al., 2013), these results suggested that the acquisition of high quality and safe products is the primary aspect for SFSC choice. In that sense, quality assurance is also a major barrier for the absorption of a segment of consumers in SFSCs, as indicated by Migliore et al. (2015), who talk about “the black box of food quality in the short supply chain”. Second PCA reflected consumers’ segmentation towards this aspect, grouping factors related to the need for quality certification and those associated to environmental or social engagement.

Contrary to previous studies that did not find a direct relation between organic labels and consumer choices (Ritenhofer and Klitgaard, 2015), These results clearly indicated the existence of a population segment that asks for quality certification as a necessary condition to purchase SFSC products. These data allow us to draw a conceptual map supported on two axes: SFSCs form (Axis 1) and SFSCs content (Axis 2). As indicated in section 3, SFSCs form refers to the existence or absence of direct relations between consumers and producers, while SFSC content refers to the use of quality certification or labels. Looking at the conceptual map, it can be notice that, while some consumers prefer to obtain direct information about food products on the hand of producers (F1E1), others find it enough, or even prefer, to get information through labeling or intermediaries (F2E1). On the other hand, it can be notice that some consumers search for products with safety or quality certification labels (F1E2), but others look for producers that share their personal values and beliefs (F2E2).

The intersection between these two axes defines four kinds of consumers preferences, that can be associated to four different categories of SFSC (Figure 4).

Type 1.- Prosumers (Pr): consumers that look for producers that share their personal values and beliefs and that like to have a direct contact with them. They prefer to participate in consumers’ groups and to buy directly at the farm.

Type 2.- Logistics limited (Ll): they are interested in sharing values with producers, but they do not prioritize to have direct contact, so they look
for intermediaries to simplify the purchase of food products. They tend to buy in organic stores.

Type 3.- Guarantees concerned (Gc): this type of consumer likes to have direct contact with producers, but they need further guarantees on the quality of food products. They get these guarantees by acquiring their products in markets backed by recognized organization or public administration (e.g., weekly food markets).

Type 4.- Certification focused (Cf): they do not need direct contact with producers, but a quality and safety certification of the products that they are buying. They are especially interested in local products and the type of commerce where they tend to buy their food products regular supermarkets (specialized shelves).

Public administration plays a different role towards each of these kinds of SFSCs. Because of that, when at national, regional or community level appears the intention to support SFSCs, is important to determine the preferred option prior to any other action. Furthermore, when a SFSC model is already in place, it is also possible to define public policies that help to foster a transition from one model to another. For instance, if a community where certification focused population (type 4) is predominant would be interested in evolving towards a prosumer (type 1) or a logistics limited model (type 2), it would be necessary to develop actions that foster the creation of producers-consumers networks. The guiding lines would be very different if the desired transition was towards more formal models. This same logic applies to SFSC producers that want to target other consumer groups.

The classification of consumers also serves to identify the best strategies to reduce barriers to SFSC choice (Table 4). Prosumers do not need further intervention, as they already engage with local producers to increase trust in food products and get them through SFSCs. In the case of Logistics limited type of group, it would be necessary to make access to SFSCs easier. Guarantees concerned consumers need external guarantees that the products that they are buying are safe, which could be achieved with public administration support. Certification focused group do not show special interest in changing their consumption patterns. A strategy to encourage the SFSC choice in this group could be to increase SFSC products presence in regular markets. However, this is unlikely to have a direct effect in consumers’ trust. It might be a better strategy to carry out awareness campaigns, educating consumers in the functioning of agri-food systems, and promoting their interest in the products that they are buying.

Currently, it is possible to find regions in the Mediterranean countries where the direct relationship between food producers and consumers takes place. However, this paper focuses on those Mediterranean regions with an intensive
urbanization process, an agro-industrial model and a radical disconnection between urban and rural areas. In these regions, small farmers need to find alternatives to the supermarkets, hypermarkets and discount stores. At the same time, some market segments are looking for a reconnection between consumers and producers.

This paper offers the perceptions of relevant potential consumers of SFSCs (Cruz Macein and Benito Barba, 2018). The above conceptual map integrates all these perceptions. This map can help to different stakeholders (like farmers or policy makers) to design stronger marketing strategies according to their target.

5. Conclusions

Information exchange and direct contact are highly effective instruments in the process of trust building. SFSCs allow to meet these requirements. However, potential SFSC consumers’ drivers are very heterogeneous. From a theoretical point of view, this paper offers a way of classifying consumers according to these drivers. The need for official or institutional warranties about food safety and the relationship between producers and consumers (direct or quasi-direct contact) are the main distinctive elements that set the difference when consumers choose their SFSC typology. This categorization has important implications from practical point of view. Promotion policies about SFSCs need to analyse what the consumers’ preferences are. This paper notes a typology of SFSCs and the elements working in each type in order to build consumer’ trust. Furthermore, it supports policy-makers and producers in designing promotion strategies for SFSCs. The categorization highlights different preferences and strategies in order to foster a specific SFSC. At the same time, the conceptual map allows producers to identify where they are focusing their production and where they would like to offer their products.

The present paper focuses on social networks followers of consumers associations. They are not general consumers, so this information would complementize with other surveys focused on representative pools of consumers. In addition, it is relevant to contrast these results with consumers’ perception whose purchase in SFSC.

References


Grebíts C., Steiner B., Veeman M., 2015. The roles of human values and generalized trust on stated preferences when food is labelled with environmental footprints: insights from Germany. Food Policy, 52: 84-91. https://doi.org/10.1016/j.foodpol.2014.06.011.


Hayden J., Buck D., 2014. Doing community supported agriculture: tactile space, affect and effects of...


**Annex 1 - Survey questions**

1. To what extent do you feel informed about food safety? (0= nothing informed and 10= strongly informed)

2. To what extent do you care the food safety? (0= nothing worried and 10= strongly worried)

3. To what extent do you agree with following statements? (0= nothing agree and 10= strongly agree) “Farmers…

   a. “…inform perfectly about their productions”
   b. “…know how to grow”
   c. “…offer safety food”
   d. “…prioritize food safety over their benefits”
   e. “…prioritize their benefits over the food safety”
   f. “…are concerned with gaining the trust of consumers”
   g. “…are concerned with agricultural environmental impact”

4. How often do you buy… (0= never; 10= always)

   a. Local products
   b. Protected designation of origin (PDO)
   c. Food directly from farmers
   d. Organic food

5. To what extent do you trust on the following people about food safety? (0= nothing and 10= absolutely)

   Supermarkets
   Retailers
### 6. To what extent do you trust on the following elements about food safety? (0= nothing and 10= absolutely)

- **Brand**
- **Internet**
- **Labelling**
- **Quality label**
- **Health mark**

### 7. What is the main reason of consumers to buy through SFSCs? (circle one)

- Higher quality food
- Rural development support
- Direct contact with farmers
- It is cheaper
- Lower environmental impact

### 8. What is the main barrier of consumers to buy through SFSCs? (circle one)

- Limited variety of issues
- It is more expensive
- There is not quality control
- It is not convenience
- Difficulties to find trustworthy producers

### 9. To what extent do you consider important the following trust drivers? (0= nothing and 10= absolutely)

- Producers’ experience
- Producers’ compromise
- Producers’ honesty
- Clear information offered by the producer

### 10. To what extent are you willing to buy in…? (0= nothing and 10= absolutely)

- Willingness to buy directly in the farm
- Willingness to buy in farmer markets
- Willingness to participate in a collective food buying group
- Willingness to buy directly to the farmer with a periodic contract signature