

# ***Farmers' motivation and perceived effects of participating in short food supply chains: evidence from a North Italian survey***

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## **1. Introduction**

The more agro-food systems tend to globalization and de-territorialization of raw material production and processing, the less consumers can be considered as active participants in food supply chains. This situation is not necessarily bad in itself. Large manufacturing companies and retailers guarantee high safety and quality standards at low prices. But space also needs to increase short food supply chains (SFSCs), given their ability to respond to the demands of new consumers (Marsden *et al.*, 1999).

Although the vast majority of consumers go to supermarkets for their weekly food shop, an increasing number of people show an increasing awareness of their role in driving changes in the food sector (Lockie, 2009). They are known as “citizen consumers”, and they are pushing for a more ethical and environmental focus in food production (Wilkins, 2005). In this sense SFSCs, which represent an alternative food market that minimizes intermediaries between producers and consumers (Renting *et al.*, 2003) and offer products which embed the localization of economies and social welfare (Marsden *et al.*, 2000), represent one of the best opportunities for citizen-consumers to “raise their voice” and show to policymakers and food producers that there is an alternative to globalization and the de-naturalization of agro-food systems.

In the last two decades, there has been increasing interest in SFSCs. Many studies have been published, and local governments have promoted specific incentives supporting these food-provision schemes (Bazzani and Canavari, 2013; Santini and Paloma, 2013). SFSCs represent a real opportunity for guaranteeing income from agriculture (Allen *et al.*, 2003). Furthermore, they increase social interaction between farmers, and between farmers and consumers (Fondse *et al.*, 2012; Brunori *et al.*, 2011). However, an expanding market could stimulate new economic actors to participate, thus endangering the value of the original system itself. Even though consumers and producers may have a close relationship, there is still information asymmetry, and profiteering farmers could take advantage of consumer

trust. The intervention of large retailers in SFSCs could also be dangerous; as in the case of organic products, such companies do actually have the resources to introduce local products onto their shelves and thus “globalize the local” (Lockie, 2009).

In this context, researchers and policymakers have the delicate role of protecting consumers from fraud and helping honest farmers in defending and developing the value of their produce, which is in part intangible, public, and vulnerable.

The present paper contributes to this issue by analyzing the characteristics of producers participating in SFSCs. We discuss the case of farmers’ markets and local food fairs in Milan (Italy), highlighting the attitudes of farmers and the effects they perceive that SFSCs have on farm organization, which can be used to highlight the strengths and weaknesses of this market structure.

The rest of paper is organized as follows. Section 2.1 discusses the literature on the sustainability of short food supply chains, and considers its economic, social and environmental dimensions. Data and methodologies are briefly presented in Section 3 and results discussed in Section 4. Section 5 concludes the paper and proposes some reflection on the future of local production schemes as well as proposing new research themes.

## **2.1 The sustainability of SFSCs: does being “local” mean being sustainable?**

Many individuals and organizations claim that SFSCs are a “solution for the globalization” of the agro-food sector. This tends to be the case amongst food activists (Allen, 2010; DeLind, 2011; Galt, 2013), politically-oriented farmer organizations, local government (DeLind, 2011), and consumers (Onozaka *et al.*, 2010). These supporters often consider that local production is more sustainable than conventional supply chains because of its “alterity”, but without making a quantitative assessment of the implications of being “alternative” (Born and Purcell, 2006). Aside from the debate around the need to fight globalization in the agro-food sector, accepting some arguments as an absolute truth may clearly have dangerous consequences.

Many researchers have reacted with scepticism to this attitude. Like such researchers, we do not believe that the re-localization of production is or is not by default acceptable, we merely recommend that its limitations just be considered in order to have an exhaustive and objective description of the opportunities and the risks that these alternative strategies present. Evaluating the economic, social and environmental dimensions of the sustainability of alternative agro-food networks is needed in order to escape the “local trap” and disclose the

real effects of SFSCs for the agro-food sector (Born and Purcell, 2006; Kirwan and Maye, 2013).

### 2.1.1 Economic feasibility of SFSCs

It is widely accepted that buying local products is “good”, because it helps to maintain local agricultural systems. This concept is even stronger in the case of direct sales, which implies the direct support for those producers that would not be able to compete in global markets. Even if we could consider consumer preferences (Seyfang, 2006; Seyfang, 2008) and willingness to pay a premium price for re-localized products (Gafsi *et al.*, 2006; Thilmany *et al.*, 2008; Carpio and Isengildina-Massa, 2009) as an opportunity, this assumption reveals that SFSCs are somehow socially accepted to be economically disadvantageous for farmers. Indeed, farmers’ income support may be acceptable because of the public goods produced by local production, nonetheless a concrete profitability of production and exchange would ensure the maximum resilience and efficiency of SFSCs at minimum costs for society. Based on the above rationale, economic sustainability of SFSCs should be considered as important as (or even more important than) social and environmental sustainability. Without profit it is unlikely that local production would survive in the long-term. So, it can be held that local producers need to (and should) add a monetary value to the resources they use, and to study if and how this is possible.

Some papers have highlighted the economic threats of being “alternative”. Galt (2013) underlines that in Community Supported Agriculture (CSA) farmers suffer from their own self-exploitation, i.e. they tend to undervalue their own work in monetary terms and trade profit for the pleasure it procures them to participate to direct sale scheme and create social relationship with other producers. Despite this pleasure, re-localisation of production occurs in a capitalistic market, which imposes competition on farmers. It does not matter whether farmers in SFSCs demonstrate collaboration strategies. This is because agro-food commodity markets offer low entrance barriers and big economic players are always searching for product differentiation in emerging niche markets (Guthman, 2004; Goodman, 2004 as cited in Galt, 2013). Furthermore, even though direct sales guarantee that producers can command higher prices than conventional retail channels, there is some evidence that such a premium price can be absorbed by increased marketing costs (Hardesty and Leff, 2010). These indirect costs are the most dangerous in terms of economic sustainability, because farmers sometimes do not even realize they are losing money (Ahearn and Stern, 2013).

Researchers have already proposed some solutions which generally lie in supporting strategic intervention for a rational development of SFSCs (Bowman and Zilberman, 2013). Given the costs of being smaller than agro-food companies, public and private investments should be concentrated in increasing human capital, capacity-building programs, organizational support and physical infrastructures facilitating partnerships and localized economies of scale (Thilmany *et al.*, 2013).

### 2.1.2 Social role of SFSCs

The social pillar seems to be the dimension of sustainability of SFSCs that researchers agree the most on. Kirwan *et al.* (2013) note that re-localizing production is not just a new way to sell products; rather it implies a radical change in farm management and its marketing strategies, which lead to social innovations in agricultural systems. Santini and Paloma (2013) show that the interaction between consumers and producers, the sense of community, and increased knowledge and behavioral changes are the three social impacts of the re-localization of agro-food production.

The interaction between consumers and producers, which could be considered to be the very basis of SFSCs, is always cited by researchers as valuable. The social benefit of a close relationship between consumer and producers operates in the construction of regard (Offer, 1997; Sage, 2003), a notion that describes the mutual satisfaction of farmers and consumers in creating a trustworthy relationship. This proximity offers producers an opportunity to explain the value of their products and maintain under control the quality of production until the exchange occurs. On the other hand, consumers regain the role of active participants by being in a position to assess the quality of food (Kirwan, 2004; Lockie, 2009). Seyfang (2006) refers to economies of place, which educate consumers in understanding what they are eating and the ethics and social consequences of their choices. Nonetheless, information asymmetry persists and the trust in producers and the self-confidence of consumers could even increase the risk of misjudgments and fraudulent behavior.

It is also argued that SFSCs increase knowledge and consequently stimulate behavioral changes in both producers and consumers (Saili *et al.*, 2007; Fonte, 2008; Santini and Paloma, 2011). Brunori *et al.* (2011) state that farms that participate in alternative supply chains need to find solutions to new and particular problems, and these circumstances are described as being the cause for the definition of new frames and organizational patterns. Kirwan *et al.* (2013) go further and refer to “social niche innovation” describing the prospect of these values spreading from alternative markets to small communities.

Raising awareness about “rural issues” stems from the different ways consumers interact with farmers. Buying local food using box schemes or community-supported agriculture schemes have been proved to facilitate consumers in understanding the characteristics and the quality of the food, stimulating an enhancement in their eating habits (Torjusen *et al.*, 2008). Sims (2009) studied the effects of local food on tourists and found that offering original products improves the sense of engagement with the area the tourists are visiting. However a consumer's perception of “local food” can be highly interpretive (Smithers *et al.*, 2008) and being local does not always mean that consumers are prepared to pay a premium-price. Gaviglio *et al.* (2014) and Cosmina *et al.* (2013), for example, measured the perception of traditional small pelagic fish species locally caught in Italy and found that consumers had a negative attitude to this local fish compared to other fish, demonstrating the need to increase the promotion and communication skills of producers. Consequently there can be misrepresentation of information from producers to consumers, so consumers' increased knowledge should be evaluated in terms of quality.

### 2.1.3 Environmental assessment of SFSCs

The environmental benefits of SFSCs are still being debated among researchers. The differences within farms and production methods make it difficult to reach any definite conclusions (Santini and Paloma, 2013). The literature is essentially limited to greenhouse gas emissions and food miles of local production (Edward-Jones *et al.*, 2008). In some cases SFSCs are considered as not being environmentally friendly, even when farmers use organic methods (Van Hauwermeiren *et al.*, 2007; Edward-Jones, 2008). Obviously, the environmental impact depends on a farm's characteristics and marketing strategies. In a comparison between box schemes and farmers markets Coley *et al.* (2009) calculated that when consumers drive more than 6.7 km, they are likely to be polluting more than home delivery by specialized retailers.

Conventional agriculture is accused of soil and water pollution given its use of pesticides and chemicals, as well as deforestation, soil erosion and the degradation and destruction of ecosystems (Stoate *et al.*, 2009; Lal, 2009), but how SFSCs could impact on the problematic characteristics of the global agro-food sector is still to be examined (Wiskerke, 2009). Some studies argue that organic local products help to improve biodiversity (Seyfang, 2008). In this sense, even if the impact is derived more from organic techniques than from the re-localization of production, SFSCs would be very interesting in agricultural areas that need

regain their ecosystem. Furthermore, local products are sometimes produced using autochthonous breeds in danger of extinction (Scintu and Piredda, 2007; Pirani *et al.*, 2010) and traditional cultivars (Garcia *et al.*, 2007; Abdelali-Martini *et al.*, 2008).

All things considered, literature shows that apart from helping traditional breeds and conserving cultivars, SFSCs do not necessarily guarantee environmental benefits, as there is no proof of any environmental loss. From this perspective, the environmental sustainability of local production seems to be somehow counter-productive for local production, creating competition between organic and non-organic producers and communicating disvalues to consumers. Further studies are needed in this field in order to investigate this issue more thoroughly.

### **3. Materials and methods**

#### *3.1. Questionnaire and interviewed farmers*

Data were collected through a questionnaire with three sections. The first section dealt with farms: location, size, production, forms of sale and share of sales among different channels and willingness to use certifications of production quality. The second and third sections covered the farmers' motivational background and the effects of participation in SFSCs.

Farmers were asked to rate in a six-point scale their agreement with statements regarding why they decided to participate in SFSC schemes and the effect they perceive that these schemes have on business management. Our aim was to: (1) derive a measurement of how much farmers share the underlying values of SFSCs; and, (2) identify any patterns among motivation and perceived effects of participation to SFSCs, in order to describe the underlying attitudes of farmers towards alternative agro-food networks.

The next two subsections explain the structures of cooperation between farmers, how the questionnaire was drawn up, and the characteristics of the sample interviewed. In Section 3.2 we briefly describe the statistical method applied for data analysis.

##### 3.1.1 Exploring farmers attitudes and perception of SFSCs

As with all entrepreneurs, local producers' choices are driven by maximization of profits objective. So, the social values producers share must be considered as a constitutive part of the utility consumers pay for when they buy local foods. Cooperation between farmers and the relationship with consumers thus have a market value, then generate profit. Therefore, as interpreted by Fondse *et al.* (2012) and measured by Wudden *et al.* (2013), the social dimension of SFSCs defines particular structures that strongly influence the economic

choices of their stakeholders. In order to measure the effects on farmers' choice, we identified some economic variables that can be connected to participation in SFSCs. These variables are listed in Table 1 and are subdivided into three macro-levels: market and prices, business management, and relationships with consumers.

"Market and prices" covers strictly economical motivations. On the basis that profit is the underlying aim, the choice of SFSCs as a strategy for sale must be market- and price-oriented. We tested the importance of avoiding competition with traditional agro-food players, the benefit of higher prices, the perception of a growing demand for these products, and the need to find new markets for them.

"Business management" and "relationships with consumers" derive from Fondse *et al.* (2012), which offers an interpretation of an economic organizational structure of SFSCs. The authors use a "marketing interpretation", which describes the interaction between the actors in SFSCs as a strategic behavior of certain farmers aimed at enhancing business performance. The basic idea is that from the collaboration between farms and the interaction with consumers, farmers gain in terms of human capital and the promotion of their products. We estimated these effects of SFSCs by asking local producers whether participating in agro-food networks has a positive impact on product characteristics or business management, which could involve lower costs in terms of unsold or returned products or higher costs in logistics. With regard to consumer importance, we asked whether direct sales enhance communication regarding the value of a product and increase the consumer awareness of local products.

Questions also focused on the role of consumers in farmers' choices in terms of production and product quality. In fact, farms could benefit from consumer trust and loyalty because these create a steady demand; in addition, consumers may actually replace the need for third-party certification bodies, as they can inform farmers directly about their needs (e.g. by visiting the farm and exchanging views with the farmer). In this sense, short food supply chains could include the opportunity for consumers to become co-certificators and to a certain extent co-producers as well.

### 3.1.2 Farms characteristics

The survey was carried out between April and June 2014 in Milan at one "Local Food" and one "Fair Trade" exhibition, and five weekly Farmers' Markets. Out of a total of 194 questionnaires distributed, 150 (77.3%) were filled in acceptably. Table 2 shows sample characteristics. Most of the farms (48.7%) had joined SFSCs more than nine years ago, with 22.7%

before 2000, and 32.0% between 2006 and 2010, and 19.3% after 2010. The surveyed farms were small. A total of 67.3% employed no more than three people. Even if the sample is too narrow to be extended to the whole population short-food supplier, the products sold represent the heterogeneity of the agro-food sector and are similar to the findings of Santini and Paloma (2013) for the European Union.

Finally, farmers were asked about their selling outlets (Figure 1). The most important sales channels were farmers' markets, where producers sell on average 35.8% of their products, farm shops 28.4%, selling using Community Supported Agriculture structures (11,1%), other specialized "local food" shops (11.0%), and Ho.Re.Ca. (6.4%). Only 1.7%, 1.5% and 0.3% of the farmers used box schemes, on-line shops and adoption of production respectively, while none of the farmers got consumers to 'pick their own' produce directly at the farm.

### *3.2. Multivariate statistical analysis*

Principal component analysis (PCA - Jolliffe, 2005) has been applied using IBM SPSS 21.0 in order to evaluate farmers' choices and the effects of SFSCs that they perceived on their economic organization. This is a data reduction method that works on correlated variables by redistributing variance on new components which are perfectly uncorrelated between each other and are linear combinations of original variables. To evaluate the PCA, Keiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity have been used. The first measures whether the partial correlations between variables are high and needs to be greater than 0.5, while the second tests whether the correlation matrix is an identity matrix and requires high  $\chi^2$  values and a proved statistical significance. In the present research, KMO was equal to 0.711, and Bartlett's  $\chi^2$  was equal to 368.9 with  $p < 0.000$ , which means that the original variables were highly correlated. In order to choose the number of components to be retained for rotation, the Kaiser criterion (Kaiser, 1960) suggests that only components with eigenvalues greater than one should be maintained, which enabled five components to be retained, saving 68.04% of the variance (see next subsections).

## **4. Results and discussion**

### *4.1 Descriptive results*

We found that few farmers adopted third-party certification labels: 21.3% were organic farmers and 18.7% sold products with a certified denomination of origin (Table 3). These percentages are relatively low considering that two of the five farmers' markets claimed to be



“organic” and given that we had included wine as well as the PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) producers. Only eight farms, i.e. 6.0% of the sample, had the ISO 9001 quality certification, which is the most widespread standard for traditional food producers. Finally, while 40.7% of the farms have no quality certification label, 13.3% of the sample stated that they adopted other types of certifications. These consist of labels linked to the farmers’ markets or are a kind of co-certification procedure, where at the consumer's request, farmers show and explain their method of production.

We also focused on the “food miles”. Assuming producers use the shortest way, we calculated the distance of each municipality where a farm was located from the farmers markets in Milan using [www.viamichelin.com](http://www.viamichelin.com), calculating that 26.0% of the farms sell within 50km, 28.0% between 51 and 100km, and the remaining 36.0% more than 100km from Milan.

Table 4 reports the motivations and perceived effects of participation in SFSCs. The farmers interviewed saw short food supply chains as interesting in terms of “market and prices”. All the variables we investigated have been overcome the middle scale point. Producers seem interested in increasing their sales ( $4.32 \pm 1.34$ ) and see SFSCs as a means to achieve this ( $4.32 \pm 1.34$ ), whereas they would not be able to compete in traditional markets ( $4.15 \pm 1.82$ ). Interestingly, the least rated variable was “we get higher prices” ( $3.98 \pm 1.74$ ). Although producers might have underestimated the benefit of higher prices, the standard deviation reveals that some of the farmers were not actually gaining a significant premium price from SFSC-based exchanges.

With regard to their perceptions of the effect on “business management”, we found a common agreement with respect to the effect of direct sales particularly on the stimulus for products ( $4.94 \pm 1.26$ ) and business organization ( $4.39 \pm 1.41$ ) improvement. Less clear, but still shared between farmers were the perceptions that SFSCs involve lower costs in terms of unsold and returned products ( $4.14 \pm 1.51$ ), suffering a trade-off of higher costs in logistics and management ( $4.14 \pm 1.62$ ).

The “relationship with consumers” was the factor farmers agreed on the most. On average, mean values were higher and standard deviations smaller than with the other macro-levels. The surveyed farmers claimed that the direct relationship with consumers enabled them to prove to purchasers the “real value” of their products ( $5.45 \pm 0.96$ ) and increase consumer awareness about such products ( $5.13 \pm 1.20$ ). This highlights an increasing interest in the

methods of local production ( $5.35 \pm 0.98$ ). Many producers also revealed that they had instilled a sense of loyalty in their consumers ( $5.04 \pm 1.30$ ), which also included a good relationship outside of the market ( $4.87 \pm 1.11$ ). We also measured the level of agreement in terms of how direct sales can help to engage consumers in food production. The farmers stated they tried to follow up on consumer requests ( $4.70 \pm 1.54$ ), and that quality certification involving third-party certification bodies can actually be replaced by direct assessments by the consumers ( $4.71 \pm 1.65$ ).

#### 4.2 Data reduction

Starting with thirteen variables, five components have been extracted and rotated using the Varimax method in order to facilitate the interpretation. Components account for 68.04% of the total variance of the original dataset (Table 5).

The first component represents 17.4% of the variance. Arbitrarily considering all the variables that score more than 0.500 as being relevant for the definition of a component, the first component consists of the following: “we are continuously stimulated to enhance our products” (0.732), “we are continuously stimulated to enhance our business management” (0.559), “we communicate the real value of our products” (0.526), “we create trust and loyalty with our clients” (0.877) and “clients are interested in understanding our methods of production” (0.583). These five variables summarize the *intangible value of being “short”*. When consumers buy directly from producers, direct communication between demand and offer creates customer satisfaction on a small scale, which links customers’ interest in production methods and stimulates producers to enhance their products and business management. Although we did not measure directly the active role of consumers in farm innovation, the component reveals that the satisfaction and interest of clients and the choices of producers are related. In fact, Fondse *et al.* (2012) underlined that participation in SFSCs helps consumers and producers to reciprocally align their utilities. Given that our results confirm Fondse, we believe that this point is key in interpreting direct sales. We also interpret the convergence of these variables in a component as being confirmation of construction of regard as proposed by Kirwan (2004), noting that in this case regard is reciprocal: consumers trust producers, while producers show interest in responding to consumer needs.

The most relevant variables in the second component, which accounts for 14.95% of the variance, were: “the demand for local products is steadily increasing” (0.773), “we communicate the real value of our products” (0.562) and “consumer awareness of the quality of our products is increasing” (0.841). As seen in Table 4, producers demonstrate good *market*

*expectations* about local products both in terms of consumer demands and awareness and in their ability to communicate their products. The link between these variables can still be explained by the proximity between consumer and producer, which is an integral part of short chains and allows farmers to promote themselves at a low cost (Mardsen *et al.*, 2000; Kirwan, 2004; Sali *et al.*, 2007).

The farmers stated that more and more consumers are asking about the production process. This implies a more conscious involvement in product evaluation than merely an “interest”. It also highlights a possible decrease in information asymmetry, and thus an increase in consumer awareness of food quality and safety (Wilcock *et al.*, 2004). This suggests farmers should enhance their own and their employees’ communication skills in order to be proactive and anticipate consumer requests. SFSCs stakeholders should also be aware of the pitfalls involved in such communication. For example, Verbeke (2005) found that consumers were sometimes confused by the information they were given by farmers.

The third component covered 13.92% of the variance and included: “we cannot compete with traditional producers” (0.652), “we get higher prices” (0.722) and “we have higher marketing costs in terms of logistics and management” (0.704). The component clearly represents the *economic value of being “short”*. Producers admitted that they cannot compete with traditional producers, and that farmers markets offer them the opportunity to command a higher price. This benefit has the costs of the marketing tools used in direct sale, that can derive from logistic and products management, as studied by Hardesty and Leff (2010).

As already discussed, although this component could be considered as an “opportunistic attitude” of farmers, economic sustainability should never be excluded from an analysis of SFSCs. In fact, observing an association between the benefit of the market price and the recognition of higher costs, demonstrate that farmers somehow recognize the compromises entailed in being 'short', i.e. its *value* and its *disvalue*.

The fourth component accounts for 11.58% of the variance and covers: “we have low costs in terms of unsold or return products” (0.832) and “our products are created following consumers’ requests” (0.692). The cause-effect between the ability of producers to respond to consumer requests and the benefit of low costs in terms of returned or unsold products cannot be inferred from the PCA results, but suggests that SFSCs help farmers to *regain market power*. Such a benefit comes from a shift from a market monopoly, where farmers would be at a disadvantage due to the economic power of retailers, to a market where there is perfect competition with some risks for final consumers. From this point of view, farmers

markets are a fair form of exchange, which sustain local rather than global production as perceived by some consumers (Seyfang, 2006; Hinrichs and Allen, 2008). They also offer an opportunity for markets to fail since consumers have no power when they are dissatisfied. The fifth and final component has an eigenvalue that is higher or equal to 1. It accounts for 10.15% of the variance and is composed of the two variables “we have a good relationship with our clients outside of the market” (0.657) and “consumers replace third-party certification bodies” (0.854). We interpret it as the presence of a *co-certification* mechanism in SFSCs. The correlation indicates that consumers and producers have a mutual interest in understanding and explaining production methods. A direct debate around products may lead to consumers becoming more satisfied as they become active participants in the quality assessment of food (Kirwan, 2004). In addition, producers save the direct and indirect costs of certification procedures and management. However, co-certification is not advantageous by definition: labels of quality certification protect consumers and honest producers from fraudulent behaviour in cases of information asymmetry.

## 5. Conclusions

Due to the increase in local product markets, in the last two decades researchers and policymakers have become increasingly interested in Short Food Supply Chains. Many issues have arisen, involving consumption, business and policy-making issues, and are mainly correlated to the relationship between the actors involved and the economic structure created. Although SFSCs have a proven social value, there are some risks in terms of the undue optimism of consumers and the opportunistic behavior of producers. In the present paper we analysed some characteristics of this niche market in order to describe some of its strength and weaknesses. A total of 150 self-compiled questionnaires were collected from various producers at farmers markets and local food fairs in Milan.

We found a heterogeneous sample in terms of production, composed of small farms with a relatively low opinion of the advantages of standard quality certification. More than a third of people interviewed have farms more than 100km away from the market place. This results should be discussed considering the European Union political framework for short agro-food chains.

In particular, we would like to point out two important objectives among institutional strategies for SFSCs: the first regards the ongoing study of a labelling scheme for local products (Santini and Paloma, 2013), the second one is represented by Priority number 3 of the Rural

Development Plan 2014/2020 which is devoted to supply chains, and directly supports initiatives for quality management enhancement and promoting collaboration among farmers. Our findings highlight that the proposal for local product labelling is challenging and may even be counterproductive for the SFSC system. Firstly, a disciplinary of production would have implementation costs, which may be not affordable for small- and medium-sized enterprises (Quazi and Padibjo, 1998), which represent the vast majority of producers participating in SFSCs. Secondly, it requires skilled managers (Karipidis *et al.*, 2009), which would favour the farmers that have the expertise required against those who produce local products, but who do not have the skills needed to participate in these schemes. Thirdly, SFSCs are claimed to support farms that cannot compete in conventional markets through consumers' recognition of food quality whereas a European label would be a conventional tool for quality recognition. Finally, a certification regime is likely to encourage large enterprises to enter the market (Brunori *et al.*, 2011), thereby "globalizing the local".

Note that we do not include the scarce attitude of farmers among reason of critical discussion of local product's label, this because we believe that quality management tools, not disciplinary of production, would actually improve SFSCs whole system. This is why Rural Development Plans need to organize supply chains among producers and create economies of scale in order to balance the costs of quality certification.

Principal Component Analysis showed that producers' motivation and perception of SFSCs can be described by components including the sharing of intangible values of local production, market expectations, the economic value of SFSCs, the ability to regain market power and the co-certification mechanism. These five dimensions are possible points of intervention for both producers and policy-makers as they highlight the opportunities and risks of the sector. As expected, our results suggest that different farmers' attitudes exist in SFSCs. In fact, as with all types of business, farms that operate within the alternative agro-food networks compete to sell their products and try to maximise their profits. Thus, some of the extracted dimensions are linked to market- and price-oriented variable, which seems to indicate the presence of opportunistic and surviving motivation also within the "fair" local producers. In this sense, as Born and Purcell (2006) underlined citing the "local trap", being optimistic *per se* about SFSCs is dangerous, not just for consumers but principally in terms of the real fairness of the local system.

Given the increasing awareness of citizen-consumers about local production, what would happen if consumers considered the behaviour of some producers as being “less socially fair” and how might this affect the reputation of the whole SFSC system?

Furthermore, although the presence of farms that seem to survive by using SFSCs can be considered as vindicating this food market scheme, amongst these farms there are nevertheless weak participants. Future research could thus investigate the boundaries of the “economies of place” in comparison with the economies of scale. Finally, given that food safety and consumer protection against frauds is absolutely vital, it would be useful if researchers and policy-makers accurately measured the reliability of the co-certification mechanism between farmers and consumers.

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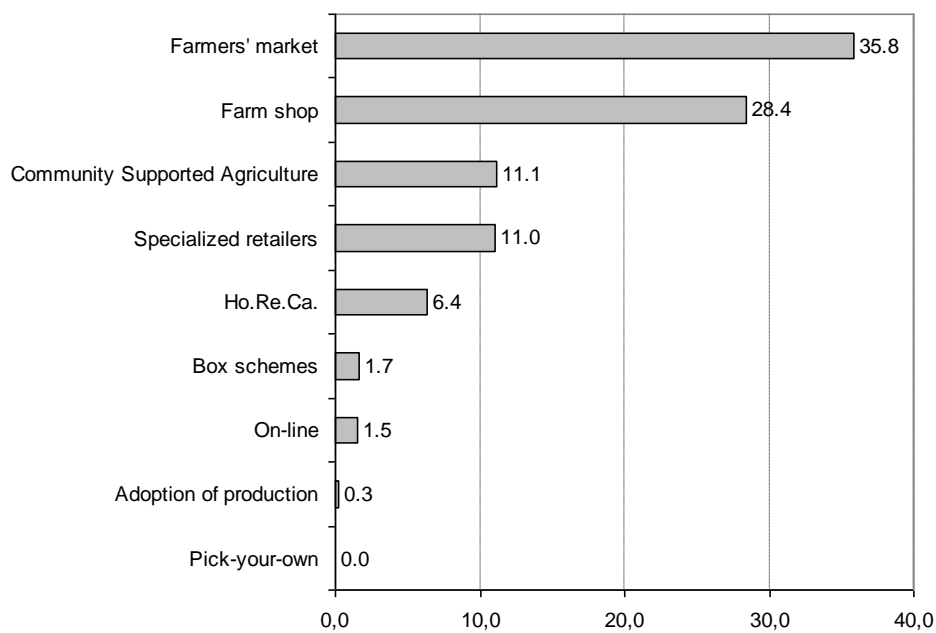
**Table 1. Motivation to participate to SFSCs and its possible effects on farm management and relationship with consumers**

<i>Market and prices</i>
We can not compete with traditional producers
We get higher prices
The demand for local products is steadily increasing
We needed to increase our sales
<i>Business management</i>
We are continuously stimulated to enhance our products
We are continuously stimulated to enhance our business management
We have lower marketing costs in terms of unsold or returned products
We have higher marketing costs in terms of logistics and management
<i>Relationship with consumers</i>
We communicate the real value of our products
Consumers' awareness about the quality of our products is increasing
Our products are created following consumers' requests
We create trust and loyalty with our clients
We have a good relationship with our clients outside the market
Consumers substitute third-party certification bodies
Clients are interested in understanding our methods of production

**Table 2. Characteristics of the sample**

	Frequency No.	Percentage %
<i>First year of participation to SFSCs</i>		
<2000	34	22.7
2001-2005	39	26.0
2006-2010	48	32.0
>2010	29	19.3
<i>Employees</i>		
1	45	30.0
2-3	56	37.3
4-5	22	14.7
>5	27	18.0
<i>Products</i>		
Meats	18	12.0
Cold cuts	6	4.0
Meats and cheese	7	4.7
Cheese and milk	10	6.7
Vegetables and meats	20	13.3
Vegetables and fruit	18	12.0
Cereals and pasta	15	10.0
Wine and alcoholic	21	14.0
Honey	19	12.7
Other products	16	10.7

**Figure 1. Mean of share of product sales by channels (%)**



**Table 3. General survey's results – Food miles and certification of quality**

	Fre- quency No.	Percen- tage %
<i>Food miles</i>		
<25km	22	14.7
26-50km	33	22.0
51-100km	41	27.3
>100km	54	36.0
<i>Certification of quality</i>		
Organic production label	32	21.3
Denomination of origin	28	18.7
ISO 9001 Quality management	9	6.0
None	61	40.7
Other certifications	20	13.3

**Table 4. General survey's results – Farmers' motivation and perception about participation to SFSCs**

Variables	Mean	Dev. St.	Low	Medium	High
			No.		
<i>Market and prices</i>					
We can not compete with traditional producers	4.15	1.82	52	51	47
We get higher prices	3.98	1.74	51	55	44
The demand for local products is steadily increasing	4.24	1.43	28	54	68
We needed to increase our sales	4.32	1.34	17	72	61
<i>Business management</i>					
We are continuously stimulated to enhance our products	4.94	1.26	10	31	109
We are continuously stimulated to enhance our business management	4.39	1.41	20	64	66
We have lower marketing costs in terms of unsold or returned products	4.14	1.51	28	64	58
We have higher marketing costs in terms of logistics and management	4.14	1.62	37	63	50
<i>Relationship with consumers</i>					
We communicate the real value of our products	5.45	0.96	2	20	128
Consumers' awareness about the quality if our products is increasing	5.13	1.20	8	31	111
Our products are created following consumers' requests	4.70	1.54	18	92	40
We create trust and loyalty with our clients	5.04	1.30	11	29	110
We have a good relationship with our clients outside the market	4.87	1.11	10	33	107
Consumers substitute third-party certification bodies	4.71	1.65	25	33	92
Clients are interested in understanding our methods of production	5.35	0.98	4	20	126

Note: farmers had to rate in a six-pointlikert scale their agreement to these assumption, from: 1= I completely disagree; to 6= I completely agree. Classification: 1-2= Low; 3-4= Medium; 5-6= High.

**Table 5. Rotated components matrix**

Variables	Components				
	1	2	3	4	5
<i>Market and prices</i>					
We can not compete with traditional producers	-0.137	0.386	0.652	0.284	-0.146
We get higher prices	-0.018	0.108	0.722	0.034	0.035
The demand for local products is steadily increasing	-0.020	0.773	0.163	0.086	-0.089
We needed to increase our sales	0.482	-0.305	0.491	0.369	-0.034
<i>Business management</i>					
We are continuously stimulated to enhance our products	0.732	0.217	-0.013	0.294	0.102
We are continuously stimulated to enhance our business management	0.559	0.454	0.034	0.420	0.030
We have lower marketing costs in terms of unsold or returned products	0.189	0.011	0.218	0.832	-0.005
We have higher marketing costs in terms of logistics and management	0.027	-0.133	0.704	-0.226	-0.050
<i>Relationship with consumers</i>					
We communicate the real value of our products	0.526	0.562	-0.151	0.031	0.277
Consumers' awareness about the quality of our products is increasing	0.241	0.841	-0.046	-0.046	0.071
Our products are created following consumers' requests	0.037	0.060	-0.335	0.692	0.171
We create trust and loyalty with our clients	0.877	-0.026	0.050	-0.007	0.062
We have a good relationship with our clients outside the market	0.173	0.140	-0.299	0.128	0.657
Consumers substitute third-party certification bodies	0.059	-0.131	0.188	0.039	0.854
Clients are interested in understanding our methods of production	0.583	0.239	-0.255	-0.071	0.450

Note: Rotation method: Varimax with Kaiser normalization. Percentage of Variance per Component: 1=17.44%; 2=14.95%; 3=13.92%; 4=11.58%; 5=10.15%; Cumulative=68.04%.