International Journal of Food and Agricultural Economics
ISSN 2147-8988, E-ISSN: 2149-3766
Vol. 3 No. 4, 2015, pp. 15-26

THE ROLE OF CONSUMERS IN THE TRANSITION TOWARDS A SUSTAINABLE FOOD SUPPLY. THE CASE OF GRUPPI DI ACQUISTO SOLIDALE (SOLIDARITY PURCHASING GROUPS) IN ITALY[1]

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Abstract

This paper addresses the role of ethical consumers in the transition process towards a sustainable food supply. The questions that immediately come to mind are: can the consumers put changes in motion in the established food supply regime? Which are the mechanisms hindering a transition driven by consumers? In order to answer to these questions we analyse the case of Gruppi di Acquisto Solidale (Solidarity Purchasing Groups) in Italy, as a support for a broader reflection to the topic. The growing dissatisfaction with the established food supply, dominated by the duopoly supermarket-global food supplier, has driven a few pioneers to search for new solutions. In the case of Italy, consumers have organized themselves into informal networks, in order to purchase quality food together from local farmers. They are motivated by the meeting of social, ethical and environmental needs (providing sustainable food and support local farmers) which were not served in the beginning by incumbent firms and they operate in the social economy as community groups.

Keywords: *Food supply, consumer innovation, informal networks, food safety*

1. Introduction

Our society is challenged by several crucial environmental problems, such as climate change, loss of biodiversity, and resource depletion (clean water, minerals, land, oil, forests, fish stocks, etc.). In order to find solutions to these problems, deep structural changes in transport, energy, agri-food and other systems are required (Elzen et al., 2004; Markard & Truffer, 2008; Grin et al., 2010). These systemic changes deal with the so called "socio-technical transitions", as they require a deep re-configuration of transport, energy, and agri-food systems, which involve technology, policy, markets, consumer practices, infrastructure, cultural meaning and scientific knowledge (Elzen et al., 2004; Geels, 2011). The transition is a complex and long-term process driven by actors such as firms and industries, policy makers and politicians, consumers, civil society, engineers and researchers.

Consumers exhibit different social, ethical and cultural values in the transition process, because they incorporate environmental issues but also extend to animal welfare, human rights and worker conditions. Broadly speaking, the so called "ethical consumer feels in charge with society and follows these feelings with an appropriate purchase behaviour"(Vermeir & Verbeke, 2006, p. 170). In the case of food supply achieving sustainability has to do with a fair price for farmers and affordable consumer prices (economic goals), with a care for natural environment, livestock

[1] A previous version of this paper was published as working paper in the DISEI (Dipartimento di Scienze per l'Economia e l'Impresa) Working Papers series in Economics (WP14/2013) http://www.disei.unifi.it/vp-95-working-papers-economics.html

production conditions and a healthy food (environmental goals) and with an integration of agriculture in the priority and needs of the society/citizens and governments (social goals). A sustainable food consumption refer to products that contribute, through their attributes and consequences, to one or a combination of these goals.

The importance of involving the citizens (in the literature either consumers or users) in the process of innovation is not a new topic (Teubal, 1979; von Hippel, 1986, 1988; Truffer, 2003; Grabher et al., 2008), although today the awareness of consumers about the pressing environmental problem has worldwide increased dramatically (von Hippel et al., 2011) and the consumer side of ethic research has grown since the beginning of this century (for a review see Vitell, 2014). Many social movement organizations (SMO) and other spontaneous associations of citizens are addressing a better quality of life in terms of health, social inclusion and environment. In order to resolve the alleged contradiction between environmentally responsible behaviour and a satisfying life (Brown & Kasser 2005), many consumers refuse a passive role in the economic system and they base their decisions on the ethical of the behaviour itself (Vermeir & Verbeke, 2006), experimenting new ideas and solutions. This conflicts with the well established Schumpeterian idea among economists and policymakers of product innovation (1934), as a producer activity, with consumers simply selecting among different offers provided on the market. In line with other studies (for a review see Baldwin et al., 2006; Grabher et al., 2008; von Hippel et al., 2011; Hockerts & Wüstenhagen, 2010; Graziano & Forno, 2012) we argue that consumer-developed innovations appear to be complements rather than substitutes for producer innovations.

In this paper we analyse the case of Gruppi di Acquisto Solidale (Solidarity Purchasing Groups) in Italy as a support for a broader reflection to the topic. The contribution of this paper draws on the results of a three steps investigation. First, we have conducted a meta analysis on the results of other researches on informal networks of consumers in Italy (Migliore et al., 2012; Brunori et al., 2012; Graziano & Forno, 2012; Migliore et al., 2014). Second, the answers to a questionnaires submitted to informal networks of consumers with a response rate of about 40 percent (354 on 980). Third, the results of 47 semi-structured interviews to 35 informal networks of consumers, together with 6 managers of supermarkets and 6 members of Slow Food local groups. The interview subjects were chosen primarily on their availability and secondly on their long experience in the field.

Then the questions that this paper follows to answer are: do ethical consumers have an active role in the process of transition towards a sustainable food supply? How (what processes and interactions) do these alternatives food systems (and related activities) are organized?

The present paper is structured as follows: section 2 introduces the theoretical framework; section 3 describes the pressures on the current food supply regime; section 4 analyses the emergence of innovations driven by consumers in the case of food supply in Italy; section 5 presents the results of the empirical analysis.

2. The Theoretical Framework

Transition studies has become more and more salient through a strong increase in the number of publications and special issues (for a review see Markard et al., 2012). Within the field, the multi-level perspective (MLP) has become a reference framework. The key element in the MLP is the socio-technical (ST) regime (Geels, 2002) which consists of (networks of) actors (individuals, firms, and other organizations, collective actors) and institutions (societal and technical norms, regulations, standards of good practice), as well as material artefacts and knowledge (Geels, 2004; Markard et al., 2012). A ST transition can be explained as a non-linear process that results from the interplay between three analytical levels: niches (the locus for radical innovations), ST regimes (the locus of established practices and associated rules that stabilize existing systems), and an exogenous ST landscape (Geels, 2002). The ST regime forms the "deep structure" that accounts for the stability of an existing ST system (Geels, 2004) and "it refers to the semi-coherent set of rules that orient and

coordinate the activities of the social groups that reproduce the various elements of socio-technical systems" (Geels, 2011, p.27).

Consumers have a leading role in every ST regime and with their purchase decisions they address the future trajectories. At the same time, consumers are limited in their choice by the potential offer in a specific market. In an evolutionary perspective, consumers stabilize the current regime as they tend to organize their purchases in a routine way. They do so in not only an individual sense but also draw on experiences that have been gained by relatives, friends and neighbours (Truffer, 2003). Beside that, ethical consumers may operate also out of the traditional markets and refer to the "social economy", comprising social enterprises plus voluntary and community organisations. On this perspective the MLP is somewhat deficient because it describes the important role of innovative niches in seeding transitions in wider socio-technological regimes, but it is rooted in analysis of commercial activities in the market economy (Vergragt et al., 2014). Other authors have studied the innovation process within the "social economy" rather than in the market economy (Seyfang, 2009; Seyfang & Smith, 2007). They refer to the "grassroots innovations" which emerge out of the typical "business as usual" form, within institutions such as cooperatives, voluntary associations, informal community groups, and other social enterprises. Compared to rent seeking firms they are driven by two alternative prime forces - social and environmental needs, and ideology - and emphasize different social, ethical, and cultural rules and values.

It follows that grassroots innovations emerge because the market lacks to meet some social and environmental needs. Incumbent production and consumption systems fail to serve some communities, either because groups are socially and economically disadvantaged, or because the choices on offer do not include a desired choice, such as fresh, local organic food in season, or autonomous housing, or community renewable energy (Seyfang & Smith, 2007).

A grassroots innovation usually means "to do the same thing in a different way" which is to change consumer practice. It may deal also with a new configuration in the structures of provision inasmuch consumers may act as a plurality. In this paper, we will refer to the grassroots innovation literature in order to propose a critical approach to the contemporary discourse that understands consumer action in terms of singular and isolated elements within a supposed invariant structure of production (Grin, 2012; Shove, 2010; Graziano & Forno, 2012). In order to highlights on dynamics and mechanisms fostering the diffusion of innovations driven by consumers we will apply some insights from the literature on innovation by user (Baldwin et al., 2006; Von Hippel, 1988; Von Hippel et al., 2011). Even though this literature refers to technological market-based innovations, the dynamics moving end user innovators match with those of consumers.

3. Pressures on the Established Food Supply ST Regime

The food supply can be conceptualized as a ST regime that is dominated by the large-scale retailers, a system for retail sales made through a network of supermarkets[2].

The benefits that make the large-scale retail trade preferable to other types of distribution are the facility, the speed, the convenience and the variety (Swinnen & Vandeplas, 2010) and some authors argue that today, due to their large diffusion and market power, they have a responsibility to contribute to the well being of the local community (Hemphill, 2005). Due to the deeply unequal bargaining powers of farmers and consumers on the one hand, and global food suppliers and retailers on the other hand, the latter can continue their dominant position in the regime. It follows that they can pay to farmers relatively low prices for crops even when the prices increase on regional or international markets, and charging high prices to consumers even when prices fall in

[2] For example, in the case of Italy large retailers account for 72% of total food market (117,3 billion of euros)(Source: AC Nielsen, 2012).

these markets (Swinnen & Vandeplas, 2010). Therefore, on the one hand, large-scale retail trade can enjoy advantageous prices, significantly lower than those granted to smaller types of distribution, and on the other hand variety is guaranteed, since the industrial companies spontaneously offer a wide range of food products. The share of the top ten global food suppliers in the global market is 28 percent and the top five companies (Kraft, Nestlé, Unilever, PepsiCo Inc. and Coca Cola) account for 18 percent (Dalle Mulle et al., 2010). In the same way, the top 10 global retailer companies took 29 percent of the top 250 global retailers revenues (Deloitte, 2013).

The strong tie between large-scale retailers and industrial food processing brands accounts for the stability of food supply regime over time. In such stable situations, innovation is mainly of an incremental nature. Radical innovations, which are pioneered in niches, have a hard time to break out of the niche-level. If the regime is confronted with problems and tensions at the landscape level, than the links in the configuration become less tight and a change become possible (Geels, 2011). So we have to answer the following questions: are there weak ties that may create pressure on the established food supply ST regime? Are there any open "windows of opportunity" for changes to emerge?

In order to lower the production costs as much as possible, the food processing companies are footloose and they can relocate across national borders in response to changing economic conditions, and in particular the price of raw materials (Swinnen & Vandeplas, 2010). Thereby for consumers it is not possible to know the exact origin of the food they are buying because, although the final product may be processed at the national level, on the packaging there are no references regarding the origin of raw materials (crops and livestock). In order to supply thousands of stores worldwide, the production is meant to be standardized, holding in low esteem the geographical, linguistic and cultural differences between the consumers all over the world, and the quality of food as the sustainability of agri-processes takes a back seat (Ilbery & Kneafsey, 2000). For this reason the processing industry is not as close to consumers as food retailers are and, thereby, adjustments are slower. Such adjustments are also more expensive, since consumers in different countries have different tastes, hampering the centralisation of production sought by corporations in order to realize economies of scale (Swinnen & Vandeplas, 2010).

Furthermore, having quantity as a primary objective, many companies are responsible for the over-exploitation of both human resources, sometimes making themselves guilty of the violation of human rights, and natural resources, contributing significantly to the pollution and despoliation of the environment (Marsden, 2003). For these reasons, in recent years there have been some manifestations of a growing dissatisfaction with this type of food supply network, linked to broader concerns that the current agro-industrial food system has not effectively provided a nutritious, sustainable and equitable supply of food to the world's population (Vermeir & Verbeke, 2006; Graziano and Forno, 2012). Technological innovations have provided cheap food to millions, but there are external costs of the system in terms of soil and water depletion, food safety scares, animal welfare, declining rural communities, rising obesity and diet-related health problems, as well as growing food insecurity (Donald et al., 2010).

In the last three decades these pressures from the landscape level were reinforced by several scandals in the food processing industry. That is the case of BSE in 1986 (Bovine Spongiform Encephalopathy), well known as "mad cow" disease that has killed 207 people in Europe in the last 25 years. Three years later, in 1989, American researchers announced that Alar or diaminozide, a ripening agent commonly used in apples, was found to have caused tumours in lab animals and was a potential carcinogen. Also recently a horsemeat scandal has spread across Europe, triggering alarms on food inspection and raising food security concerns on the continent. Scandals like these, combined with recent media attention on pesticides and obesity (Hargreaves et al., 2013) fuelled a surge in demand for healthy and secure food.

Therefore, due to a gradual process of change in the ST landscape the food supply regime is today under growing pressure and the weak ties in the regime are local farmers' decreasing revenue and consumers dissatisfaction. The re-positioning of consumers purchase decisions might open a

window of opportunity for new configurations at the niche level and new spaces of interaction with farmers within which their identities can emerge, hitherto obscured by the chiefly industrial model of agriculture where the individual and biodiversity have no pivotal role to play (Migliore et al., 2014)

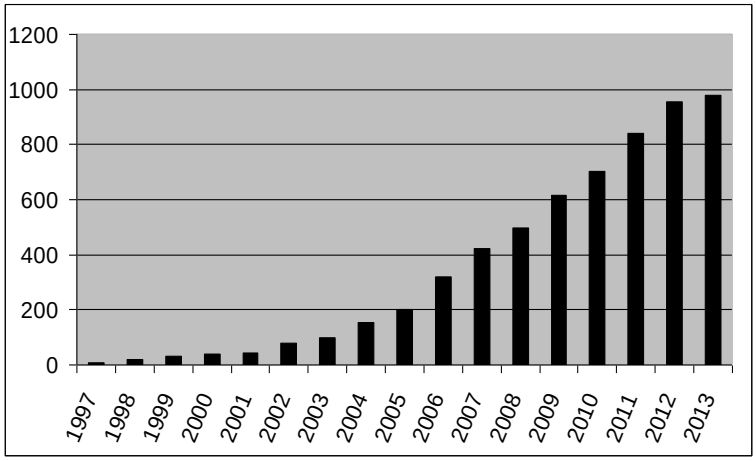
4. The Emergence of Innovations Driven by Consumers in the Food Supply: The Case of Gases in Italy

The growing dissatisfaction for the established food supply ST regime, dominated by the duopoly supermarkets-global food suppliers, has driven few pioneers to have an active role in breaking the taken-for-granted duopoly. These "bioneers" (Schaltegger, 2002) or "users-innovators" (Baldwin et al., 2006) tend to be moved by a strong ethical issue in opposition to consumerism and growth.

Within the food supply regime consumers as isolated individuals have a difficult time to find innovative solutions whereas associations of consumers who engage in the development of alternatives could be an important force for redefining the current regime. Since the Nineties, some consumers have organized themselves in informal networks of consumers in order to buy healthy local food out of the conventional retailers. In line with the grassroots innovation literature (Seyfang & Smith, 2007) these informal networks started up because consumers were not able to fulfill their needs within the established food supply ST regime. These grassroots innovations were born in opposition also to the current agri-food regime: standardized and specialized production processes responding to economic standards of efficiency and competitiveness on one hand; localized and small scale production processes attempting to trade on the basis of environmental, nutritional, or health qualities on the other (Sonnino & Marsden, 2006).

These new informal networks of consumers shape differently worldwide and they are known as Community Supported Agriculture (CSA) in U.S., Canada and North Europe, TEI-KEI in Japan, Association pour le Maintien d'une Agriculture Paysanne (AMAP) in France, ConProBio in Switzerland, Voedselteams (food teams) in Belgium, Grupos Autogestionados de Consumo (GAK) in Spain, Food Justice Movements and Food Policy Councils in U.S. and Canada, NyKA in Hungary. They operate at the niche level and since the Nineties they have been experimenting innovative solutions within the food supply ST regime. In Italy the informal networks of consumers are well known as GAS which is the acronym of "Gruppi di Acquisto Solidale" (Solidarity Purchasing Groups). A GAS is an informal network of consumers set up by a number of members who cooperate in order to buy food and other commonly used goods directly from the producers. The term "solidarity" is used by GAS to distinguish them from buying groups, being simply a mean of saving, without any ethical connotations. The ethical aspect, or supportive of these groups, it is therefore considered the most important aspect, which characterizes them as experiences in the field of critical consumption. Secondly, but equally fundamental is the reference to the importance of social and human relations or the relationship with the environment and with the farming and food traditions. It follows that the ethical consumer in a GAS is a stricter category than the reflexive consumer (Giddens, 1991) as a GAS member "reflects specifically upon ethical consequences of his or her behaviour, while the reflexive consumer is involved with more general cultural norms" (Vermeir & Verbeke, 2006, p. 170).

The first GAS was established in Ferrara in 1994. Unfortunately, since it does not exist yet an official census of GASes, the only database available is the volunteer list registered on the official website of the Italian Network of GASes (www.retegas.org). The list is not complete because many GASes are not registered yet. Since 1994, GASes have increased dramatically and in June 2015, at the time of our research, the list included 990 groups.



Source: www.retegas.org

Figure 1. The growth of GASes in Italy

An Italian GAS selects products and producers because of ethical factors such as the respect for the environment, the solidarity between the members of the group and the producers. Specifically, these guidelines lead to the choice of local products (in order to have a direct relation with producers), fair-trade goods (in order to respect disadvantaged producers by promoting their human rights, in particular women's, children's and indigenous people's) and reusable or eco-compatible goods (to promote a sustainable lifestyle).

An important feature is their capacity to build ties of reciprocity and trust not only among members, but also with farmers (Migliore et al., 2014). The choice of which farmers to start up relations with is made on the sharing of values and identity, on the area of production and based on the principle of solidarity. Indeed, GASes support small and mid-scale farming, which are marginal with respect to the global market (Migliore et al. 2012).

The GAS operates through its members who are responsible for organising both orders and deliveries. As the number of products provided by the GAS can be quite large (e.g. fresh vegetable, meat, milk, honey, bread, eggs, fresh and dry fruits, fish, cheese, rice, pasta, olive oil, wine), many members have an active role. The representative member will make periodical calls for orders by informing about the set of variety of the product that can be ordered, the prices, time and place of delivering (Graziano & Forno, 2012). He/she will collect orders and money and forward them to the producer. The delivery place can be either his/her house or a public space and it becomes an important occasion for face-to-face interaction among members. Producers can be present at the delivery points so consumers can interact directly with them.

In order to distribute among members the time spending, the task of handling the orders are fixed through a rotational system and in general for each product corresponds a member. For instance there is much flexibility on how the task can be allocate among members: they can follow logistic needs (consumers closer to the delivery point), specific characteristics of the product (for example, Parmigiano Reggiano cheese and meat need large orders and the frequency of delivery can be lower in compare with fresh products such as fruit, vegetable and milk) or producers criteria (those who are frequent customers of a specific producer) (Brunori et al., 2012).

The network uses the internet to communicate and several GASes have created web sites to further enhance the visibility and effectiveness of the groups. In fact, the internet has been a powerful tool in creating social networks and making GAS work, because orders are often placed in the restricted section of the web site. Without the internet, such a massive expansion of the groups would not have been possible.

A key of GAS organisational life is the periodical meeting, normally organised on monthly basis, although the internal communication rest on daily e-mailing. The meeting can have different issues such as rotation of tasks, new products, new members, new initiatives and connections with other networks (Graziano & Forno, 2012; Migliore et al., 2014).

In order to explicitly focus on the territorial embeddedness of food supply transition (Coenen & Truffer, 2012) we need to shine a light on the institutional contingencies and particularities of the Italian contexts. First, the cultural context surrounding alternative food was supported by the activities of Slow Food Association. Since 1986, when Carlo Petrini founded it, the association has promoted local foods and centuries-old traditions of gastronomy and food production. The organizational structure is decentralized: each local group (*convivium*) has a leader who is responsible for promoting local artisans, local farmers, and local flavours through regional events such as taste workshops, wine tasting, and farmers' markets. Slow Food has supported GASes from the very beginning, directly - some local groups has become a GAS – and indirectly, acting as a "bridge" between consumers and local farmers.

Second, in Italy, as in Spain and France the development of alternative food networks is achieved through the activities of regional quality productions and direct selling in and outside the farm (Marsden, 2004). In fact those countries, along with Portugal and Greece, originate more than 75% of European registered, regionally labelled products. Parrott et al. (2002) explain this by referring to the combination of a number of cultural and structural factors such as the large availability of small, diversified, and labour-intensive family farms employing traditional methods; the prevalence of the convention of "domestic worth", with the market and industrial conventions embedded in robust localistic and civic orders of evaluation; and the presence of highly fragmented food-processing sectors. Within this context, Italian producers have often been attuned to traditional and typical regional foods and, more generally, to the view that "the context of production (culture, tradition, production process, terrain, climate, local knowledge system), strongly shapes the quality of the product itself" (Sonnino & Marsden, 2006, p.186).

Third, in Italy the national and EU legislation on legal protection of quality production has always supported the consolidation of alternative food networks. In contrast, in countries such as the UK, the Netherlands, and Germany the development of a sustainable food supply is often based on a more "commercial" quality definitions, stressing environmental sustainability or animal welfare, and more on innovative (and retailer-led) forms of marketing then on the construction of regionally distinctive foods (Sonnino & Marsden, 2006).

5. The results

From the questionnaires, it emerges that the range of members participating in a GAS is between 20 and 180 and a member can correspond to either a family or a group of friends/neighbours. The GASes were founded either by families in the same neighbourhood or by pre-existing groups of citizens (sport and cultural associations, parishes, employees of medium and big companies, Slow Food Association local groups).

All GASes answered that they put first local producers as they want to establish a long lasting relation with suppliers and to be guaranteed on the quality of the food. Furthermore they are glad to support the diffusion of local products from farms and enterprises that operate legally, respecting workers and environment. Therefore, the GAS can support small and local farms, which are suffering the pricing policy set by large retailers. Whether some products are not available locally, they are purchased either at the regional or national level. The origin of purchases is:

- Local (30-60 per cent of total purchases): vegetables, meat, milk, honey, bread, eggs, fruit;
- Regional (20-50 per cent): fish, cheese, rice, pasta, olive oil, wine;
- National (10-30 per cent): oranges, labelled products such as parmesan cheese, balsamic vinegar;

- International (0-5 per cent): only fair-trade products such as coffee, sugar and cocoa.

Among all suppliers, the range of organic producers swings from a minimum of 80 up to 100 per cent. GAS members have expectations about the quality of food and they believe that organic products are healthier and more sustainable for the environment. Ironically, as they purchase directly from the farm, the price of organic food may equal the industrial processed products available in the supermarkets. Due to the high cost of certification processes, it emerges that 40 per cent of farm suppliers is not certified as organic, despite they comply with the rules described by the regulations on organic farming.

In order to keep them as small informal group, the majority of GASes answered in a very idealistic manner that they will not move further the original form. The strong idealism is a prime force within grassroots innovation (Seyfang & Smith, 2007) but it might be a limitation for future developments of consumer innovations so to inhibit the possibility to influence changes in the established regime (Hockerts & Wüstenhagen, 2010).

However, in a few cases they answered differently, going so far as to envision different trajectories. Only 35 GASes on 354 have evolved into a registered non-profit association with a web site, a bank account and a legal entity. Usually they are GASes with a high number of members (80 up to 180) operating in the major Italian urban areas (Milan, Turin, Florence, Rome, Bologna). In order to organize deliveries and weekly meetings, to meet local producers and to organize events and laboratories, some of them have established a physical location, that is, they have rented a warehouse or a shop. These evolving GASes are opening to non-founder members, *de facto* acting as a conventional shop or through a web site (shopping on line). It follows that they do not share the implicit motto declared by many GASes in the interviews that to stay "pure and small is beautiful". Instead, they also have a clearer expectation to achieve successful growth and that mainstreaming do not requires necessarily them to abandon their ideals (Hockerts & Wüstenhagen, 2010).

In some cities, this developing track is the result of networking in the sense that a certain number of GASes established an urban network, to move beyond a minimal threshold. Even though to date there are few, in the future they could spread and GASes will eventually come to have some influence upon the mainstream, through not necessarily in forms anticipated by original niche idealists (Seyfang & Smith, 2007). This is not the case yet, although a similar development track has already happened in Italy since the Fifties, when some cooperatives of consumers (well known with the brand COOP) have evolved into large retailers.

In order to support the process of GAS formation so to strengthen the tie between consumers and local farmers, some Italian regions (e.g. Puglia, Calabria, Umbria) passed a specific law. GASes can then have access to public funds in order to support the start up phase and cover partially the initial investments such as a web site, a management software or the organization of educational events.

A GAS can be seen as a radical innovation within the food and farming policy, in the sense that it reflects quite different sets of values, beliefs about the nature of the environment and the desirable outcomes of sustainable development. For instance, a GAS supplying food to members is experimenting not only with logistic, but with the social infrastructure of food supply. It does this by offering an alternative to the mainstream supermarket system with the aim of minimising the environmental and social costs associated with globalised food systems, for instance transport costs, soil degradation, carbon emissions and effects on local economies and communities. In niche terms, GAS initiatives exhibit first and second order learning, building environmental support and capacity (Hargreaves et al., 2013). From the interviews to GAS and Slow Food members emerges a wide set of indirect environmental and social impacts, for instance environmental awareness-raising, education and promotion, changing the attitudes of local policymakers, engaging people in sustainability issues in their daily lives, and developing new ways of working towards sustainable development. Furthermore, several interviewed GAS representatives have presented activities that are good examples of grassroots lobbying activities: organizing petitions or events in order to make

pressure on local institutional decision-makers on environmental issues, meeting with party candidates, supporting the inclusion of environmental issues in the political agenda, and, creating an electoral list connected to the GAS or at least supporting an existing one, to better channel its key goals and participating in local elections. Similar to mainstream pressure groups, GASes "have started to raise awareness on environmental and social justice issues by promoting educational projects in schools, by organizing conferences, or by promoting environmentally friendly pilot projects at the local level" (Graziano & Forno, 2012, p.125). It follows that the future development of GASes will depend also on their capacity to promote themselves so to reach a larger number of citizens in the local community.

6. Conclusions

In line with a growing number of scholars (Franke & Shah, 2003; Baldwin et al., 2006; Grabher et al., 2008; Grin, 2012) we argue a more critical approach supported by an explanatory framework that casts individual consumers as co-shapers of the structure of provision. Even though the debate on market-based political actions has grown significantly over the past several years, the majority of studies on the subject have mainly focused on individual consumer motivations and practices, and little attention has been paid to grassroots movements that promote changes in individual behaviour as a way to achieve greater environmental and social justice (Seyfang & Smith, 2007; Graziano & Forno, 2012).

In the case of food supply, after a period of search by some pioneering consumers, new configurations have emerged worldwide. In the case of Italy, consumers have organized themselves into informal networks, called GAS, in order to purchase food together. We have treated GAS as a grassroots innovation because they are motivated by the meeting of social and environmental needs (providing sustainable food) which were not served in the beginning by incumbent firms and they operate in the social economy as informal community groups moved by ethical issues (Seyfang & Smith, 2007).

The key mechanism hindering a transition driven by consumers is networking and a free-revealing community. It follows that "any scale of community is more efficient than innovators acting in isolation" (Baldwin et al., 2006, p. 21). The benefits of a networked community of consumers hinge on the non-rival property of innovations and it needs to be supported by extended use of information technologies and internet.

As a GAS requires both changes in the routine of purchasing and networking, many consumers will reject this innovation. GAS is costly in terms of time, and so, beyond a core of committed environmentalists who would willingly make those sacrifices, or had already adopted pro-environmental behaviours, it simply does not fit with existing systems of practice at the level of individual lifestyles. In the light of the grassroots innovation literature, consumer innovations can be then constrained by a range of different everyday practices that are not necessarily regime specific. In the case of GASes, the new food supply system collides with a modern lifestyle, which pivot on private use of cars, commuting, lack of time for cooking and social networking (face to face). Due to the benefits that they allow (facility, speed, convenience and variety of supply), the vast majority of citizens continue to be committed to supermarkets. In this respect, applying both the MLP and the grassroots innovation literatures, it has helped to reveal some of the more subtle and implicit ways in which regimes and practices appear not only locked in, but also locked together (Hargreaves et al., 2013).

Today large retailers, attracted by the new market potential, are recovering and they have increased their offer on organic local food (e.g. Coop in Italy, Migros and Coop in Switzerland, Rewe and Edeka in Germany, Albert Heijn in the Netherlands, Sainsbury in the U.K.). Due to their flexibility on the supply side (Swinnen & Vandeplas, 2010), they are able to adapt so as to meet the

new needs of consumers. For instance, COOP, which is the largest retailer within Italian food market (market share 15,3%[3]), has introduced in the regions of Piedmont, Liguria and Lombardy, vegetables and fruits with a completely new brand called "Orto qui" (literally vegetable garden here). They are included in the brand about 60 different local products available in the supermarket, predominantly between June and October. It follows that seasonality, which has always been a limit for supermarkets, geared to standardize their offerings, in this phase it becomes a value. However, incumbent firms are if anything even more interested than GASes in codifying these standards (local, seasonal, organic) explicitly since they lack in reputation (Truffer et al., 2001).

It follows that the contribution of GASes to the food supply transition is therefore more related to their cultural action and lobbying rather than to the market share that they have reached. Together with the activities of Slow Food and the new marketing strategies of farmers (farmer markets and direct sale), the GASes contribute to the growth of consumers awareness about the challenges on food and thus both increase the demand for local quality food and fulfilled their ethical attitude. Supermarkets that then co-evolve with consumers can enter this emerging market. This clearly contributes positively to the sustainability transformation of a regime, because it improves access to products of higher social and environmental quality to a wider market, and is likely to reduce other sustainability impacts through process innovation along the way. On the other hand, the entrance of cost-conscious large-retailers increases the pressure to somewhat lower sustainability criteria and to give up some of the ethics cherished by the first generation of consumer innovators (Hockerts & Wüstenhagen, 2010). Therefore, to some extent, the price of gaining more breadth may be to lose depth in terms of sustainability quality.

Further research is needed in order to gain additional insights from comparative studies of innovation driven by both consumers and incumbent firms. In such studies, it would be particularly interesting to watch out for the specific challenges encountered by consumers and incumbent firms in their attempts to broaden and deepen the level of their impact.

In order to evaluate the effect of GASes on the transition towards a sustainable agriculture, more research is also needed on the side of production, as an indirect effect of GASes on the food supply is that of supporting local producers with their purchases. In other words, they support the emergence of a local network of farmers from the niche level.

In this paper we have gone beyond the dichotomy between Davids and Goliaths (Hockerts & Wüstenhagen, 2010) and we have argued that the sustainable transformation of food supply is not going to be brought about by either consumers or incumbent firms stand alone, but instead that their interaction and co-evolution is essential (Grabher et al., 2008). It seems that the main problem related with the neglected role of consumers in the process of innovation is that the categorization of producers and consumers is always separate, distinct, with predetermined roles. The challenge posed by the co-evolution between production and consumption then go beyond a more intense engagement with the latter (Grabher et al., 2008) and it requires the seamless integration of the two drivers of change in the same conceptual framework.

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