PAGRI/IAP

Politica Agricola Internazionale

Volume **2/2014**

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INTERNATIONAL *agricultural* POLICY

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EDIZIONI
L'INFORMATORE
AGRARIO

Rivista trimestrale - Poste italiane s.p.a. - Sped. in A.P. - D.L. 353/2003 - (conv. in L. 27-2-2004 n. 46) art. 1, comma 1, DCB Verona - Cas. post. 520 - 37100 Verona - Una copia € 15,00

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Numero chiuso nel mese di dicembre 2014

L'Informatore Agrario Srl - Via Bencivenga-Biondani, 16 - C.P. n. 520 - 37133 Verona
Direttore Responsabile: Elena Rizzotti • **Editore:** Edizioni L'Informatore Agrario Srl - Verona
Stampa: Verona Grafica srl - Registrazione Tribunale di Verona n. 46 del 19-9-1952

Politica Agricola Internazionale
INTERNATIONAL agricultural POLICY

Volume **2**/ **2014**

Language Editor / Responsabile Revisione Linguistica:

With the patronage of ***Food Trend Foundation*** FOOD TREND FOUNDATION

CONSTRUCTING THE NEW RURALITY - CHALLENGES AND OPPORTUNITIES (OF A RECENT SHIFT?) FOR SWEDISH RURAL POLICIES

JEL classification: Q16, Q18, R22

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Abstract. *This article highlights the outcomes of the implementation of the New Culinary Country program implemented in to facilitate and speed up the emergence of the new rurality in Sweden. Based on results from focus groups and one group interview conducted in eight landscapes/counties during 2013 and a state initiated evaluation of the NCCP, the study answers the following questions: What does the NCCP mean in terms of governance? How is power distributed and if possible, which are the consequences of this new governance regime? Which are the main challenges and opportunities of and for the NCCP? The results show that the NCCP has led to a higher degree of regional coordination of actions and resources at regional level. Cooperation and coordination in turn have proved to be the main factors behind the most successful experiences.*

Keywords: *New rurality, Rural development policies, Rural governance, Regional development, Sweden.*

1. Introduction

Since Sweden became a member of the European Union, the domestic market conditions for agriculture have constantly deteriorated. As a result, a shift away from only promoting continuous productivity gains has been set in motion and a wider concept of rural and even regional development has become an important component of agricultural policies. This re-orientation reinforces a process that was set in motion by the transformation pressure exerted by the agro-food market, but that has become stronger and stronger.

In the academic discussion, the responses to current process of agro-food globalization and negative transformation pressure are denominated as the study of the new rurality. This wide research area grasps many orientations, such as: (1) The conceptualization of the territory, landscape changes, cultural and social processes and relations (Trubek 2008); (2) The shift of focus in policies from agriculture to a broader rurality (Westholm et. al 2008); Changing consumer behavior and price building (Goodman 2002); The emergence of Localized Agri-Food Systems Approach (LAFS) where the main focus has been put on cultural and territorial aspects (Arfini et al 2012); The emergence of short food chains, community supported agriculture, the valorization of previous marginalized lands, rural migration within the EU, et cetera (Rytkönen 2013); Farm diversification (Löfling 2014). There are also numerous studies that focus on farm

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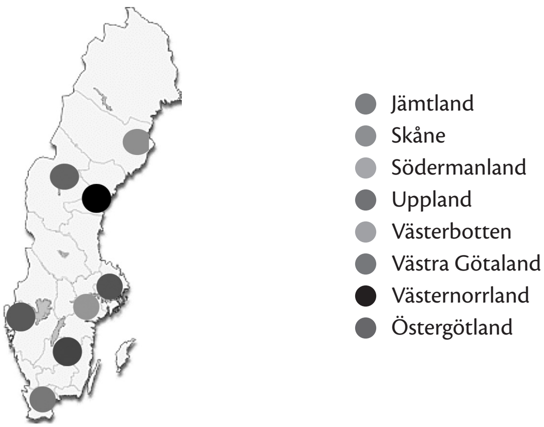
administration, or target environmental aspects. No previous studies have highlighted the recent policy changes, thus increased understanding of the nature and impact of policy change is an urgent matter.

The emphasis of this study has been delimited to the New Culinary Country Program (NCCP), a policy package that has become a key part of the state led effort to support the new rurality. The NCCP was a government initiative launched in 2008 as a combined effort to speed up the emergence of the new rurality in Sweden, as well as to cope with typical post-industrial questions, for example the creation of job opportunities that can replace those of a disappearing industry. Some of the questions to be answered are: Has the NCCP been efficient in promoting the transition towards the new rurality? Has the NCCP influenced forms of cooperation, the distribution of power and the degree of autonomy of stakeholders at regional level? And if so, how? Which are the main differences between regions? Which are the main expressions of the NCCP at regional level? Which are challenges and opportunities for the future of the NCCP?

2. Methods and sources

This article is mainly based on seven focus groups[1] conducted during 2013 in the counties of Jämtland, Skåne, Södermanland, Uppland, Västerbotten, Västernorrland and Östergötland (figure 1) and one group interview conducted in, Västra Götaland with the participation of 105 key stakeholders at regional level, such as representatives of farmers and food artisans and food processors' organisations, Country board administration (here after CBA), municipalities, leaders of important rural development and food projects, NGO's, farmers and food producers, regional representatives of the national farmers' association, tourism organisations, local universities and other knowledge centers.

Fig. 1 - Geographic diffusion of focus groups and interviews



[1] Some complementing interviews were also conducted with Mattias Dernelid, brand manager for Smakriket (The taste kingdom), a brand for artisan food owned by one of the largest wholesale companies, Martin&Servera (10th of January 2014); Helene Oscarsson, CEO of Vreta Kluster in Östergötland, (7th of October 2014) and Bo Källstrand, Governor of Västernorrland, Interviewed 5th of December 2013.

The counties were selected with the aim of getting a representative sample of Sweden. Since part of the purpose of the study is to understand the dynamics between stakeholders, focus groups were considered as the best method. In a focus group, participants work with questions pre-determined by the researcher. As participants work through the questions together answers are generated through a dynamic discussion that allows for a deep understanding. Focus groups also enable reaching a large number of informants during a short period of time (Tursunovic 2002).

3. Policies for the new rurality - a conceptual discussion

The concept of governance is normally used to describe how government and non-governmental organizations cooperate and interact, how power is distributed within the state but also outside. It can also be used to create conditions for ordered rule and collective action (Stoker 1998, p.18). Goodwin (1998) proposed that the new rural governance includes the capacity of agents and stakeholders to act. He argued that the study of the new rural governance should include how *social, economic* and *political* interests are articulated in rural areas. This is critical for the understanding forms of power and the goals and interests within a governance structure and to answer questions of who is involved in governance and who is excluded.

Power dependence between stakeholders is another important area of study. This is essential to understand coordination of territories, resources and people, or the lack of it (Goodwin 1998).The latter can also be studied through an analysis of territorial governance, which has been defined as "*the process of territorial organisation of the multiplicity of relations that characterize interactions among actors and different, but non-conflictual interests and construction of a shared territorial vision" (*Davoudi et. al 2008:37). It is of course possible to criticize this definition starting from the vast research that actually highlights the presence of conflictual interests in any process that includes rurality. However, if interpreted as an ideal model for territorial governance it can be used to understand success or failure of defined goals depending on how close or how far a particular case is from this ideal.

A further proposition is to study the creation of regimes, partnerships or co-operation groups; and the capacity to achieve policy goals (Goodwin 1998). Some of which can be visualized through quality schemes that are used to organize and structure relations within alternative agro-food networks (Higgins et. al 2008:15-27).The latter can also include network analysis, within which networks are understood as linked together through external or internal agency and within which stakeholders sometimes join forces to meet various challenges (Murdoch 2000, pp. 407-419).

All of the above propositions include an in depth understanding of the structures through which rural areas are governed. Issues such as degree of autonomy of rural areas versus the degree of centralization of rural policies by the central state are key issues to understand the cause of restructuring (Woods 2011). The concepts and positions are also of value for this particular analysis, but in this article the emphasis will be put on *forms of cooperation at regional level* to answer the question of how the NCCP has influenced regional governance, e.g. the forms of cooperation; *the level of autonomy and centralization* of stakeholders vis-a vis regional authorities, to answer the question of the degree and efficiency of top-down, respectively bottom up strategies at regional level; *the distribution of power*, to answer the question of which strategies/constellations are efficient in promoting the new rurality through the NCCP; and the expressions and challenges that varying regional strategies give rise to. The *efficiency of the policies* will also be discussed in relation to the mentioned concepts[2] *Efficiency* is in this case understood as the capacity of regional governance to promote diversification, achieve regional coordination of stakeholders and resources, produce synergies and stimulate the creation of activities and practical solutions that will sustain the new rurality, translated into festivals, markets, regional umbrella brands, geographical indications, cooperation between producers and stakeholders, et cetera. The study is delimited to the regional level.

4. The productivist regime vs. the new rural regime - a background

Like in other Western European countries, Sweden implemented agricultural policies that aimed to promote a rise in productivity at farm level during a large part of the 20th Century. The decline in number of farms was, until the late 20th Century, desired since it enabled the transfer of labour from agriculture to the industry. But since the 1990's and especially after the Swedish EU membership, the competitive power of Swedish agriculture declined rapidly (especially vis a vis its European competitors) and the decline in number of farms accelerated. In 1990 there were 96560 farms, and in 2002 the number had been reduced to (almost 27 percent) (Jordbruksstatistisk Årsbok 2002 and 2012). This called for measures, not the least to stop the depopulation of rural spaces.

The decoupling of agricultural subsidies in 2003 offered a possibility to rephrase policies and a totally new course was set to create a shift of policies from a focus on agricultural production to a broader rural development goal (Government document 2003/04:137 and SOU 2006:101). The shift is described as highlighting "place based firms" (farms and other rural firms) as a new and strategic resource for future growth (SOU 2006:101).

The shift was accentuated in 2007, when the government re-named the policy to "Sweden the New Culinary Country program" (NCCP). The initiative was financed through the Rural Development program through modulation, e.g. transfer of funds from traditional agricultural policy instruments to environment improving measures and rural development. Therefore, part of the funds that previously were channeled to farm support now is granted to new areas. An evaluation of the goal achievement of the NCCP shows that primary production, e. g. traditional agriculture has received a marginal amount of the funds (only 6%) (Kontigo 2013).

Although it seems that this might be a totally new political focus, it is partly an old vine in new skin. The initiative widened agro-food policies to include large and small scale food elaboration, tourism, public procurement, restaurants and also some social goals. As can be seen below, parts of the initiative really represent an effort to promote the new rurality and others aim to promote a more general post-industrial development and employment policy.

[2] With the exception of the term regime, that in most cases is used to highlight the mentioned issues at a higher level of aggregation (e.g. national or international).

Tab. 1 - Overview of the NCCP	
Focus area/goals of the NCCP*	
1.	**General goals**
a.	New work opportunities (20 thousand new jobs) and increased economic growth in rural areas and villages.
2.	**Public food**
a.	More SMEs (farms and firms) participating and winning contracts in public procurement
b.	Increased quality of public food
3.	**Primary production**
a.	The share of farmers comfortable with her/his choice of work increases
b.	Increased production and increased profitability
c.	More young people applying to agricultural educational programs
4.	**Processed food**
a.	Increased production and profitability
b.	More food companies (20% to 2020)
c.	Double food exports
d.	More SME contribute to export growth
e.	Access to well-educated personnel that masters the know-how
5.	**Food tourism**
a.	Increased number of guest nights in rural areas by 20 % to 2020
b.	Increased number of farms that offer lodging, farm store, farm restaurant, etc.
6.	**Restaurants**
a.	Increased profitability
b.	More restaurants with high standard.

Source: Jordbruksdepartementet 2008.
** Today there is a sixth focus area that was formulated after the first evaluation of the program in 2013. The new focus area is trade and includes food wholesale, retail and consumers (Regeringen 2013).*

The goals that have a direct relevance for rural areas are number 1a; 2a; 3a, b, c and 5 a and b. The other goals influence rural areas only indirectly. An evaluation of the goal achievement of the NCCP was presented in 2013 shows that the goals were in general are difficult to measure[3]. But the evaluation looked only at the macro level, therefore the following analysis is of high relevance for understanding the true impact of the NCCP.

[3] The evaluation divided the five main goals into 16 part goals, of which 11 disclosed an unclear development only five showed a clear positive development (Kontigo 2013). Failure was explained as a result of unrealistic and badly defined goals. For example the main employment goal is extremely difficult to measure since the agro-food sector is undergoing a text book example process of creative destruction. Old companies and farms are disappearing at a fast rate, while new firms and farms with new scopes and business ideas are emerging. Moreover, many farms diversify as a strategy to cope with negative market pressure. Results are also influenced by how the NCCP work has been organized at regional level.

5. The structure of the NCCP at regional level and forms of cooperation

The structure of the NCCP at regional level and forms of cooperation can reveal which type of governance has articulated at regional level to implement the NCCP. In several of the counties regional NCCP groups have been founded to coordinate activities, facilitate the interchange of experiences and create synergies. Such groups are found in Jämtland, Skåne, Västerbotten, Västernorrland and Östergötland. Results show that the existence of an NCCP group influences the impact of the NCCP on the emergence of new rurality activities. But coordination for other purposes can have the same positive effect. This is the case in Västra Götaland, where the tourism sector, through the Västra Götaland Tourism Board, initiated a cooperation with Lokalproducerat I Väst (Local food in the West)[4], not for the purpose of NCCP work, but to improve the access of local food as part of destination development and in a few cases making food as the main goal of tourism. This alliance has generated favorable effects for the achievement of NCCP goals.

In Uppland there is no organized NCCP work but there is some degree of coordination through the food artisan/farmer alliance "Bondens Mat I Uppland"[5], through which they organize the yearly "Farmers' own food festival", developed a food map with information of all members, farmers markets and other activities. In Södermanland there is no NCCP group, but group food artisans created a cluster, "Sörmlands Matkluster"[6], to coordinate activities, such as food walks and festivals. This is however a relatively small group, one of the main topics brought up by the respondents during the focus group was the discord between various stakeholders, including the CBA. They concluded that producers can sell everything to the Stockholm market; therefore they don't need to cooperate.

Another influencing factor is the formulation of regional NCCP strategies. Two counties had in 2013 formulated strategies for their NCCP work, namely Skåne and Södermanland. In Skåne the strategy is divided into a food strategy and a beverage strategy. The formulation process has been an important tool to move the process forward, since a large number of stakeholders were involved during parts of the process. In Södermanland the situation is different. The county board administration formulated a strategy and asked key stakeholders to retrospectively legitimize and adopt the strategy. This created a problematic situation because stakeholders believe that the provincial government competes with them rather than to facilitate their work.

The main conclusions of the focus groups is that (1) coordination of resources and stakeholders is a key to achieve success, (2) the articulation of a legitimate NCCP strategy speeds up the creation of synergies and promotes cooperation between different types of stakeholders, for example farmers and chefs, farmers and schools, food artisans and stores, food artisans, stakeholders, (3) that the CBA (Country Board Administration) can facilitate the NCCP work but also obstruct it. A facilitating attitude leads to more positive effects. There is also an important difference between the South and North of Sweden, since market conditions in the North are tougher, especially for farmers that are rapidly decreasing in numbers; (4) that a bottom up,

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4 Lokalproducerat I Väst is an advisory/consultancy firm that also organizes a network of local food producers in the province of Västra Götaland.

5 The farmers' food in Uppland, http://www.bondensmatiuppland.se/hem

6 http://www.matkluster.se/

inclusive practice promotes the spread of the new rurality, increases the economic potential or a region - because it leads to different forms of cooperation that creates synergies. While a top down approach creates the opposite results (Rytkönen 2014).

6. Distribution of power at regional level

The distribution and allocation of power is decisive for the facilitating goal achievement and policy efficiency at regional level. Differences in the distribution of power at regional level are visualized below. The results of the focus groups show that there are four main stakeholders and the degree of autonomy and even progress concerning goal achievement was dependent on which one of these stakeholders issued the greatest influence over the NCCP work. The four stakeholders are food artisans, primary producers/farmers, tourism industry and public agents.

Tab. 2 - Power distribution at regional level

1. Food artisans Jämtland Västernorrland	Skåne	**Primary production** Östergötland Västerbotten
3.Tourism Västra Götaland		**4. Public agents** Uppland Södermanland

The results show that in counties where the tourism sector, food artisans or primary producers' interests where more dominant stakeholders had worked out forms of cooperation that are including and initiatives are more or less bottom up. This facilitates goal achievement and coordination of resources. In the counties where the public sector is the leading agent, by power struggles and conflicts are representative features.

In Östergötland the NCCP work is organized under the umbrella of Vreta Kluster, and incipient cluster in which representatives of main stream conventional agriculture are leading, but food artisans and consultants are also present. Funding is channeled from the regional authorities to the leadership of the cluster and thereafter funds are distributed to the cluster members based on various projects (Helene Oscarsson, Interview 2014-10-07).

In Västerbotten it is the regional office of the National Farmers' Association that acts as convenor and locomotive for different activities. Funding from the Rural Development program is issued by the CBA. In Jämtland food artisans are dominant. This is not surprising, since the 1970's established a food artisan cluster that is leading even at national level. Other stakeholders moved in the village of Ås, where the national center for artisan food is located. Synergies are expected to increase. (Rytkönen et al 2013).

In Västernorrland the dominant stakeholder is the food artisan association Smakstart Västernorrland in cooperation with the Swedish Rural Economies and Agricultural Societies that act as a node for activities concerning rural development in general and the NCCP in particular. Västernorrland is a late starter compared to other Swedish counties, but coordination of activities and a broad inclusion of stakeholders and agents has been a condition for funding set by the CBA (Interview with Bo Källstrand, Governor of Västernorrland 2013-12-05).

In Västra Götaland the leading agent is the tourism industry. This county discloses a deep contrast between coastal and inland areas. Most efforts are concentrated on the exotic coast, by offering lobster safaris and other activities connected with small scale fisheries. A common feature the above named experiences is that the dominance of tourism, primary producers and food artisans, does not exclude the existence of other types of stakeholders, but the interests of the leading stakeholder leaves a mark on the strategies and activities that are undertaken.

In Södermanland and Uppland the dominant stakeholder is the CBA. The most extreme case is Södermanland, where the CBA has developed strategies and posteriorly asked stakeholders to validate them. In Uppland there is an incipient cooperation between stakeholders.In both counties the CBA has taken the role of main stakeholder. This is perceived by respondents as generally negative, since developed strategies lack legitimacy amongst the people that are supposed to achieve them.

Skåne is the only example where there is a general balance between stakeholders. Stakeholders are organized under the umbrella organization of Livsmedelsakademi (Food Academy) and the CBA has played a key role in supporting the formation of a regional governance model. It is also Skåne that has achieved the most concerning the NCCP. Some of the results are applied research, the articulation of a beverage strategy, increased number of successful activities such as the Skåne Food Festival, just to mention a few.

In Uppland, Västernorrland and Västerbotten there is an alliance between food artisans and primary producers, which is considered a success factor. In Västerbotten and Västernorrland the rapid decline of agriculture forces stakeholders together.

The main conclusion concerning the distribution of power is that the efficiency of the NCCP in promoting the new rurality is generally negative or insufficient when public agents are the leading stakeholder.

7. Autonomy versus centralisation

Looking at autonomy and centralization of the NCCP work can help us to understand which strategies are more efficient in the achievement of the goals of the NCCP.

Autonomy means that stakeholders have or are in the process of articulating a model for inclusive regional governance, while centralization means that the government controls the exercise of power and decision making is done without stakeholder participation (Woods 2011). Looking at Autonomy versus centralization offers understanding of the potential of top down, versus bottom up policies for promoting a shift towards the new rurality.

Skåne, Västra Götaland, Jämtland and Östergötland disclose the highest degree of autonomy. This has meant that strategic decisions have been made by stakeholders and resources have been allocated on the needs that respective leading stakeholders consider most important In Östergötland for example an important focus of the NCCP work has been to open up possibilities for winning public proccurance calls for local farmers. In addition, the work at Vreta Kluster is organized around specific primary products, and stakeholders (farmers, food artisans, researchers and consultants) all tem up around each product. Best results have been achieved in these three counties.

Västerbotten and Västernorrland constitute a special case. Due to the difficult market conditions for farmers in both counties the CBA plays a larger role, still leaving some degree of autonomy to active stakeholders. Results are positive, although current market conditions hamper future potential.

Both Uppland and Södermanland disclose a high degree of centralization and most or all decisions are made by the CBA. The participants in the focus groups noted that there is a huge potential for economic growth, but that the actions of the CBA and their detailed control over available subsidies limit their possibilities.

8. Expressions of the NCCP at regional level

A considerable number of activities that promote the new rurality take place in all regions. In several places regional NCCP groups to coordinate actions have been initiated. These groups contribute with the territorial coordination of resources, they facilitate synergies and enable the diffusion of knowledge. In Skåne for example, Smaka på Skåne (taste of Skåne) has regular meetings with a panel of retail stores. The panel members help to solve logistical problems so that local food can reach the stores. In several of the counties speed-dating between stores and farmers/food artisans, and between chefs and farmers/food artisans are organized. This helps creating new sales opportunities, but also offering the producers feedback on their quality and knowledge about what the market wants. Food festivals and/or the food logistics of other large activities are promoted. For example in Östergötland, there is a lot of emphasis on promoting local food on large sport tournaments, in Västerbotten the NCCP group is coordinating all food events and food logistics in the celebration of the National Cultural Capital that will be going on in Umeå (one of the main cities) throughout 2014.

Place based branding, using the name of the county or landscape is an important expression of the process of territorialization and all focus groups concluded the positive influence of the NCCP on that process. One of the measures adopted by the government at the beginning of this program was the appointment of NCCP ambassadors in each Swedish landscape. In some cases the geographical limits of landscapes coincide with those of counties and some do not. Nevertheless, these appointed ambassadors have played a crucial role in the promotion of the NCCP in their regions. They have become symbols of their landscape. Moreover, a number of umbrella brands, using the name of the landscape/county have been established to promote regional food.

Brands (or trademarks) can be divided with reference to their status. A relevant such in this case the budget brands, which are used to turn to broad audiences and premium brands used when companies want to reach an audience that is willing to pay a higher price for the product, in exchange of experiences and qualities that together provide a sense of class, prosperous and distinctive from the mass market (Parment 2006). In this case the umbrella brands are used to mediate a feeling of belonging to the local consumer and add a sense of localness to bulk products and more exclusive foodstuffs. According to Mattias Dernelid (representative for the artisan food brand Smakriket at the whole sale company Martin&Servera), these regional brands work well on the brand's home (regional) market.

The results indicate that working with terroir and territorializing, e. g. using territorial attributes in food production and marketing activities is increasing rapidly. The counties that show most progress share some important features: 1) The CBA facilitates (and does not take over) the coordination of activities and long term planning; 2) There is a functioning NCCP group or other entity with long term commitment that coordinates actions; 3) Leading individuals in the group have a clear territorial thinking.

A shortcoming in the presentation above is the lack of available statistics that enables a separation of traditional farm diversification and farm activities from that of the new rurality. However, the National Board of Agriculture notes that the number of new work opportunities in less favoured areas and rural areas is larger than the number of closures. Most of these work opportunities are created by self-employment in micro businesses (Jordbruksverket 2014).

10. Matlandet (Food country) or Pratlandet (talk country)

The results of the focus groups show that the main critique is that the shift in policy has led to a vast increased number of projects in which the local stakeholders, and especially farmers and food artisans are expected to participate in. These projects are considered to take too much time from the producer's own productive and economic activities. In addition, most projects are granted for a period of one year and the entities applying for the projects are often local organizations and NGO's. Since these local stakeholders need to survive on a year to year basis, every year they need to apply for new projects, which they sometimes do at the expense of previous positive outcomes. Thus the funding system might be counterproductive since it does not stimulate to long term investments.

The two main challenges are the decreasing number of students in agricultural secondary school programs and the rapidly decreasing number of farms, especially in the northern part of Sweden. This was illustrated by the Chairman of the NFA in Jämtland through the following quote:

"When there is more than 150 kilometers to the next farmer and one cannot borrow a filter - then one becomes a loser"

One conclusion is that the decline in number of farms presents severe problems, not only for the future articulation of the NCCP. The argument of stakeholders is quite clear: Without food, no there can be no culinary country! The decline can be illustrated through the dairy sector. According to statistics, the number of dairy farms in Jämtland decreased from 372 in December 2001 to 151 in December 2012, in Västerbotten the number of farms was 529 in 2001 and 258 in 2012, in Västernorrland it was 344 in 2001 and 132 in 2012, in Skåne it was 1043 in 2001 and 426 in 2012, in Östergötland it was 590 in 2001 and 309 in 2012 and finally in Västra Götaland it was 1981 in 2001 and 865 in 2012. (Svensk Mjölk 2013). There is, however, an important difference between the north and the south of the country because in the South there are other economic alternatives and the number of large cities is larger, while in the northern part and especially in the inland of Sweden, primary production is essential for the local economy.

Another important conclusion is that bureaucracy is still seen as a large problem when people want to start food production. Producers need to keep contact with a large number of authorities, rules are difficult to interpret and implementation is quite varied. This is confirmed by Bonow et al (2013), who concluded that local food and health regulations for fisheries in the four municipalities that form the delimited area for the PDO Kalix Löjrom varies between individual inspectors. While some of the fisheries were forced to refrain from using the preparation facilities for other purposes during the 11 months when there is no vendance harvest, while other municipalities gave permission for other uses (Bonow et al 2013).

11. Concluding remarks

Returning to the questions asked in this article: Has the NCCP been efficient in promoting the transition towards the new rurality? How has the NCCP influenced forms of cooperation, the distribution of power and the degree of autonomy of stakeholders at regional level? Which are the main differences between regions? Which are the main expressions of the NCCP at regional level? Which are challenges and opportunities for the future of the NCCP?

Four indicators were selected to answer our questions. The first, *forms of cooperation at regional level,* shows that NCCP groups have been formed in Jämtland, Skåne, Västerbotten Västernorrland and Östergötland and in Västra Götaland the tourism sector indirectly drives the NCCP agenda. Although the leading stakeholders in each county have directed the focus of the NCCP to reflect their own interests, these groups are efficient in coordinating efforts and resources as well as promoting the new rurality through the NCCP. Since conditions and strategies vary results are more or less successful. Contrary to the previous, in Uppland and Södermanland where the degree of coordination is less pronounced, results are also less positive.

The second and third indicators, *the level of autonomy and centralization* and *the distribution of power* indicate that the best results have been obtained by counties in which stakeholders are relatively autonomous and that represent the interests of either agriculture, food artisans or the tourism industry, (e.g. private sector). An important lesson is that the role of the CBA should be to facilitate and not to control development in detail. The two examples in which the CBA is the leading stakeholder, Uppland and Södermanland, clearly show that when authorities implement a top-down approach development might be hampered. Although this might seem as a plea for a more liberal approach when implementing rural development policies, the argument of stakeholders is that a detailed medling from the CBA consumes time and energy that stakeholders need to conduct their businesses. But there is a contradiction in this argument, because respondents also criticized the NCCP for being too vague and a clearer direction was desired.

The last and fourth and last indicator is the *concrete outcomes and challenges* for the NCCP. There are many activities at regional level, such as umbrella brands, food festivals, markets and fairs and geographical indications. Regional coordination and the degree of autonomy of stakeholders vis-à-vis the CBA are directly correlated to the number of expressions of the NCCP and of their efficiency. Consequently Skåne, Västra Götaland and Östergötland have achieved the highest efficiency in the implementation of the NCCP, Västernorrland and Västerbotten are half way, struggling with the negative market conditions of the agro-food sector in the north of the country, while Uppland and Södermanland disclose the least efficiency.

Finally, there is a vast critique towards the NCCP. The main challenge for the future seems to be the underlying process of structural rationalization that each year forces many farmers to close down their operations. In spite of the critique and of the challenges, the NCCP has during a few years facilitated the transition of agriculture to a broader rural development.

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INSTITUTIONALIZING SHORT FOOD SUPPLY CHAINS FOR SUSTAINABLE DEVELOPMENT: CHALLENGING ISSUES

JEL classification: D4, Q12, Q13

Marie Dervillé*, Frederic Wallet**

Abstract. *The paper discusses the conditions for the development and sustainability of short food supply chains (SFSC) and the potential role of a labelling scheme defined at European level. Based on the analytical framework of institutional economics, our study shows that the coordination mechanisms developed by the actors who engage in SFSC respond to economic as well as political logics, and identifies mechanisms specific to these forms of market regulation. The role of geographical proximity in SFSC approaches is underlined, as well as the variety of its meanings depending on the models. In a context characterized by a vast diversity of initiatives, the limitations and benefits of regulations based on existing informal institutions are presented. Finally, the relevance of a unique labelling system of SFSC is questioned and means for improving its effectiveness are suggested.*

Keywords: *Short food supply chains, quality standards, institutions, territorial resources, proximity*

Introduction

Since the late 1990s, producers and consumers have expressed renewed interest in short-food supply chains (SFSC) (Goodman, 1999). Alongside traditional farm and market direct sales, a diversity of initiatives has emerged: collective sales outlets, community supported agriculture and associations supporting small farming (AMAP), direct supply to local communities, supermarkets, etc. (Chiffoleau, 2008; Sonnino and Mardsen 2006). Reconnecting consumers and producers, and relocating agriculture and food production systems is essential, which requires better recognition and clarification of the practices and principles used by the different stakeholders. In this perspective, a recent report commissioned by the European Commission in 2013 (EC 25911) highlights the vitality and diversity of existing SFSC initiatives, further emphasizing that their relative weight varies greatly from one country to another, and showing the diversity of social, economic and environmental benefits of these different approaches.

The different categories of stakeholders, as well as the public actors are set to consider this success as an opportunity to consolidate agricultural and food policy as well as territorial development. The post-2013 CAP, for example, clearly states that improving competitiveness of local markets is an objective. Thus, reflection has been conducted on the advantages of institutionalizing SFSC, to bring coherence to this diversity, within and across countries

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at European level. Three main objectives are put forth: i) to support farmers, supply chains and avoid fraud and ii) to promote sustainable territorial development as well as iii) to satisfy consumers' demand for quality products and establish a direct relationship with consumers while reducing uncertainty. The appropriate legislative proposals on ways of supporting the development of SFSC are under discussion at European level. Regulation EU NO 1151/2012 on quality schemes for agricultural products suggested examining the benefit of establishing a dedicated labelling scheme. This proposal has met with resistance from the original founders of these approaches who consider it a threat to the freedom of action and a source of additional financial and non-financial constraints (sanitary standards, controls, organizational changes…) (2013EC(COM866))..

Nevertheless, objectifying the attributes of SFSC products is a key issue for the sustainability of these approaches (Renting et al. 2003; Kébir and Torre, 2013). The April 2012 high-level conference on "Local agriculture and short food supply chains" stressed "the importance of a shared vision with quality, environment, ethics, culture, social links and conviviality taking precedence". SFSC correspond to specific ways of marketing food products. The quality of products in SFSC is based on trust between producers and consumers, but may also be related to other aspects. It is evidenced on the one hand by the choice of some producers to certify their products with organic and PDO label. Such a strategy points to a linkage with specific products and the need to certify SFSC products. On the other hand, the involvement of conventional operators in some SFSC corresponds to a hybridization process with a more industrial vision of agricultural products' quality. As with any marketing strategy, SFSC are confronted with imitations and fraud. Improved communication of information, traceability and fraud control are among the benefits of a labelling scheme put forth by the 2013EC report (COM866), which nevertheless highlights that effectiveness of a labelling scheme depends on what is covered and potentially certified. The costs and constraints of effectiveness would have to be taken into account. In this perspective, the EC report suggests that a label should be voluntary and simple, without additional costs for producers.

In this context, two hypotheses are brought forward in this article. First we consider that institutionalizing the SFSC may contribute to their sustainability. Second we assume that a conceptualization of the meaning of proximity in these supply chains may support the institutionalization process. In others words, we discuss the need for institutionalization, the form it could take and how it could be implemented to support the development of SFSC governed by values such as trust and interpersonal relation, as put forth by the founders of these approaches.

The discussion is developed in three steps. First, combining market institutional analysis and proximity economics, we develop a framework aimed at conceptualizing SFSC. In part 2, the specificities of SFSC as market segments are identified. The advantages and limitations of an informal institutionalization process are discussed. Finally, we highlight that the diversity of SFSC can be explained by different but interdependent notions of proximity. A typology of SFSC in terms of cognitive and political representations of proximity is proposed. The analytical work is essentially based on a literature review.

1. Market segmentation and territorial resources: prospects for short food supply chains

In this section we try to explain how market actors (including public ones) have structured their action around proximity relations to develop market segmentation strategies and build short food supply chains.

1.1. An institutional analysis of market functioning

Addressing the institutionalization of SFSC requires questioning the nature of and issues pertaining to institutions in market regulation mechanisms. Institutional economists point out that the processes of institutionalizing exchanges form part of an endeavour to better manage uncertainty, making it possible, among other things, to define the terms of trade, stabilize relations and exploit the rationale of differentiation.

According to Fligstein (1996, p.658), due to uncertainty in market exchanges, *"the purpose of action in a given market is [indeed] to create and maintain stable worlds within and across firms that allow them to survive"*. Firms to escape price competition use two strategies: integration and differentiation. Both types of strategies build on the activation and common use of material and immaterial resources (Dervillé and Allaire, 2014). Fligstein claims that these strategies rest on political as much as on economic actions. It is especially true during emergence phase, as it is currently the case for SFSC, when economic players tend to promote and legitimize production and business models. However, approaching the question of institutionalizing market relations leaves open that of the nature - normative and formal or on the contrary informal and contingent – of the institutions called upon to finalize the exchanges.

Following Commons (1931), we consider market institutions as social order resulting from settled conflicts and acting as coordination devices. Once established, on the basis of previous coordination experiences, these working rules help reduce uncertainty, gives the market participants a recognized market position, and in so doing help stabilize market functioning.

In this perspective we suggest that SFSC institutionalisation result from the political and economic action of three types of stakeholders: (i) economic operators (farms, private or cooperative agro-food companies and consumers) that compete, cooperate, exchange and invest in differentiation strategies; (ii) collective stakeholders – professional or sectoral -, who collectively build market stabilization or innovation policies; (iii) public stakeholders, who together with the sectoral stakeholders, develop the framework of commercial exchanges.

Institutional market analysis provides a framework for better understanding both market stability and change. Three dimensions of market creation and functioning can be identified: i) How competition is restrained and transactions among actors are regulated; ii) the qualification of the products and services exchanged; iii) the structuring of the production and innovation systems (Coriat and Weinstein, 2004). However, understanding these processes, in the case of SFSC, requires paying particular attention to the geographical dimension of production and trade, in a context in which, as outlined in the 2013EC report (25911) and academic literature (Goodman and Goodman, 2009), the various definitions of the concept of local often remain unclear and lead to different interpretations.

This is why we aim to shed light on the political and economic issues associated with the institutionalization of short food supply chains by combining this institutionalist framework with a proximity approach.

1.2. Market segmentation, territorial resources and alternative food supply chains

1.2.1 A qualitative shift in food markets: an incentive to develop local resources

In recent years, quality has become a key driver of food trade. It pertains not only to the sanitary and physical characteristics of the products as is the case for industrial goods, but also to their immaterial attributes, related to the production system that made its development possible and the associated consumption practices (Hatanaka et al., 2005). The latter attributes are at the core of alternative food markets.

The expansion of markets for alternative food products has been possible through the cooperation between market actors in pooling and managing specific resources, and especially through market institutions involved in quality control at various scales. This work has not only been a cognitive process but also a political one (Renting et al. 2003; Marsden and Sonnino 2006). In the case of SFSC, the discourse of stakeholders concerning the value of « the local » and of inter-individual relations has helped better characterize the specificity of this market segment. Nevertheless, one may wonder whether the process of specification and differentiation in the market segment is complete.

According to Allaire (2013) the reputation of a product is linked to an identification process with two components: a more or less elaborate discourse about the products' identity (doctrine) and a set of assessment criteria used within regulation mechanisms controlled by public actors (compliance with a public decision) or within voluntary standardization and certification processes. Studies on geographical indications, for example, have shown that the efficiency of those identification processes was key in terms of local resources development (Tregear et al., 2007). In this perspective, the absence of definition of measurable (and possible certifiable) attributes associated with the SFSC suggests that the process of identification of SFSC has not reached its goal; in other words that the identity of this market segment is not stable. At territorial level, this lack of stabilization calls into question the means of articulation between SFSC and industrial supply chains in the context of strategies for supporting local agriculture and food systems. We defend the hypothesis that a better understanding of what the stakeholders identify when using the term proximity could contribute to stabilization.

1.2.2. Complementarity between Economics of Proximity and institutional market analysis

Proximity economics analyze how relations between stakeholders are established and develop, organize and reveal resources (Kébir, 2010). It provides insights into how different forms of proximity combine in structuring coordination (Torre and Wallet, 2014). The role of networks and social relations in the different forms of economic coordination is highlighted ('logic of belonging'); the hypothesis is the structuring of more or less big communities around moral values, agreements, standards and representations, etc. ('logic of similarity') is both an essential factor in facilitating coordination, and has an impact on the forms of coordination. Organizational and cognitive proximity is based on both logics of belonging and similarity. Organizational proximity results from "a political action that aligns interests that will be more or less satisfied by obtaining common objectives, trade-offs between irreconcilable interests, the imposition of choices that finally appear to be legitimate to the stakeholders, etc." (Talbot, 2010: 129-130). It may be reinforced by geographic proximity, which facilitates interactions, control, and a convergence of representations. In other words, stakeholders' cooperation in building and sharing resources is both an economic and political process that may be facilitated by geographical and organisational proximity.

Thus, it seems pertinent to call upon proximity economics to help shed light on processes of development of SFSC and to gain a better understanding of the difficulties of institutionalizing those initiatives on a larger scale.

The territorial resources on which SFSC rely are generated thanks to a more or less "organized' geographic proximity; activating those resources rests on learning processes and coordination between local stakeholders. These processes contribute to the specification of territorial resources (Lajarge and Pequeur, 2011). In this perspective, a major issue lies in determining the institutions that will be developed and called upon at the various phases of construction of the specific local resources. Applied to the case of SFSC this proximity based analytical framework helps understand the diversity of coordination mechanisms supporting such initiatives.

1.2.3. The specificities of SFSC in terms of resources activation and market segmentation strategies

Renting et al. (2003) use two criteria to differentiate alternative food networks: i) specific mechanisms to develop producer-consumer relations in time and space; ii) quality definitions and conventions involved. They identify three types of AFN: i) face to face; ii) proximate; iii) extended.

In the latter case (Geographical Indication, Organic, fair trade), the implementation of labelling and control systems, as well as their institutionalization via the public authorities appeared to be the most suitable response for the parties concerned, for the development of specific food and farm product markets. In this case a certification system contributes to consumers' information by improving knowledge about product characteristics (Isla and Wallet, 2009). It also helps producers minimize 'free-riding' and gain collective control over product quality, the level of quality premium and how it is shared.

The case of "face to face" and "proximate" AFN (i.e. SFSC) is different. At local level, a specific institutionalization process is taking place together with the structuring of the chain, leading to the establishment of local formal and informal institutions: norms relative to production and business models or governance structures. But so far, most of those institutions have remained localized and there has not been any coordination between the different types of initiatives. Indeed, literature tends to show that labelling is mostly required in the case of extended SFSC, when trust and product reputation cannot be gained and maintained through face to face interaction (Renting et al. 2003; Benkahla et al., 2004).

To sum up, of the various ways through which the geographical dimension has been introduced in the quality shift (terroir, production process, proximity) have resulted in various associated forms of regulation and institutional arrangements.

In the next section, we will shed light on the forms taken by institutional processes in the case of SFSC, analyzing the political and economic aspects on which resource creation processes supporting market segmentation strategies are based.

2. Development of SFSC: a specific institutionalization process?

The doctrine or symbolic dimension associated with food products commercialized through SFSC is rather clear: more artisanal production, quality, organic or sustainable oriented practices, short supplying, embeddedness (Ilbery and Maye 2005). Yet, the strategies undertaken to build these SFSC, the resources activated and the stakeholders and governance structures involved vary widely depending on the place. Public actors have so far respected these views. Nevertheless, while interpersonal trust is central to SFSC, the sustainability of this type of product marketing requires that it takes a more collective dimension. As they refer to the same doctrine, SFSC are de facto interrelated. Thus consumers' trust can only be maintained over time and on a larger scale if SFSC gain unity and stability in their ability to respond to the consumers' expectations and to differentiate themselves from the industrial organization of food markets. Yet it seems that in the case of SFSC, market institutions have remained mostly informal and localized. The lack of criteria for measuring the quality of the products, and of the production and marketing processes is an obstacle to stabilizing the identity of this market segment. Is it so because this type of marketing approach gives centre stage to interpersonal relations, which do not require further regulation but limit the prospect for SFSC further development? Or is more time needed to further the institutionalization process?

Assuming that the diversity of SFSC initiatives reflects the plurality of representations of proximity, we propose to use the framework developed to provide new approaches to the structuring of these alternative food markets.

2.1. SFSC: a necessarily informal approach?

In France - country from which most of our examples are drawn, SFSC are defined by the Ministry for Agrifood, Agriculture, and Forestry as "the commercialisation of agricultural products through direct selling or indirect selling when only one intermediary is involved" (100809 Lettre Circuit court).

The development of these market segments is based on an innovation process involving individual or groups of producers and consumers, intermediaries, in some cases with the support of public actors. New skills have been developed and specific tangible and intangible resources have been activated to promote proximate relations. Of course, this trend is not specific to France and the European Commission report (EU95911) states that SFSC may result in various behavioural changes in eating habits, for example, with public health effect; or in production with of more environmental friendly practices. These specificities and the skills associated with them could contribute to establishing core resources and quality criteria shared by SFSC. Nevertheless, the resources activated are diverse and mainly place specific.

The diversity of these initiatives has the advantage of being able to adapt these agricultural products' marketing strategies to the diversity of production, consumption and socio-political contexts (Renting et al. 2003; Deverre and Traversac, 2011). In other words, this diversity highlights the institutional ability of local actors to develop original solutions to problems encountered (Chiffoleau and Prevost, 2012; Poisson and Saleilles, 2012).

The similarity between the Tekkei in Japan, the community-supported agriculture in the US and the AMAP movement in France suggest that the ideas and solutions associated with the emergence of SFSC have disseminated within countries and across borders. However, these initiatives rarely form part of large scale coordination schemes. This example shows that political efforts are being made globally to promote the development of networks and the dissemination of ideas. But as mentioned above, specifications for stabilizing the identity of SFSC identity remain to be developed. The European debate about the relevance of a labelling scheme illustrates the difficulty of building formal institutions.

Some authors go as far as considering SFSC and quality labels as complementary or even mutually exclusive approaches (Benezech, 2011). Yet the diversity of SFSC show that SFSC go beyond interpersonal relations. It questions the identity of this market segment and its sustainability.

2.2. Limitations of the informal localized institutionalization process

Three major limitations of the informal institutionalization process can be identified. First, SFSC have not, as yet, been able to establish an effective and informal multi-scale governance structure. To better manage their success, SFSC's collective sales outlets and AMAPs, for instance, have begun to unify their practices. They now have a charter and a representative association (Bernard et al., 2008), which aims at providing a common orientation to different local projects. However, these associations struggle to collect membership fees and to finance joint projects.

Secondly, the lack of objectivity in the specific quality criteria associated with SFSC expose them to imitation, as is evidenced by the development of retail "local brand" and hybridization with conventional operators (Goodman and Goodman, 2009). A degree of product standardization is in fact required to promote market expansion beyond inter-personal relations (Allaire, 2010). This hybridizing process presents the risk that conventional operators will reap the benefits of the reputation and the value created by these short chains, which calls into question rural development prospects. In addition, the expansion of these approaches and the flexibility of the informal institutional process create a potential risk of confusion and a lack of readability for consumers, with the associated risk of damaging the products reputation.

Third, recent studies on the processes of activation, enhancement and sustainable development of regional resources reveal the necessity of implementing appropriate governance structures to organize coordination between stakeholders (Lajarge and Pequeur, 2011). More generally the role of institutional mechanisms in balancing the tension between competition and cooperation in market differentiating processes has been highlighted (e.g., Fligstein, 1996; Chiffoleau and Gauche, 2013; Dervillé and Allaire 2014). Individual and dispersed strategies lead de facto to collective interdependence in terms of quality attributes. This suggests that multi-stakeholder and multi-scale governance structures should be considered. Sharing values and agreeing on common practices (production and commercialization methods, characteristics of the products) and adopting management tools helps limit opportunistic behaviour and fraud.

This is in keeping with Bernard and al. (2008) results on the AMAP; results which highlight the need to develop binding and efficient management tools to preserve the identity and the reputation of the approach over time. Collective issues concerning the stabilization of SFSC market identities encompass and determine localized initiatives. Which form should those tools take in order to be effective? Minimum quality threshold, minimum informational content; harmonization at regional, national level?

2.3. A challenge related to structuring collective action

Yet, experienced from labelled products have shown that the institutionalisation issue goes beyond labelling. Alternative food networks engaged in formal institutionalization processes, and whose products' quality is guaranteed through labels and third party certification (GI, Organic) have indeed shown that labelling is not necessarily a guarantee of success. Several risks have been identified: exclusion, lack of market premium, risk of losing the handle on the market segmentation strategy (Higgins et al. 2008; Vandecandelaere et al. 2009; Dervillé and Allaire 2014). But benefits have been identified as well. It seems that the issue of institutionalization of quality in alternative food market is related to the structuring of collective action. Comparative approaches of GI have taught some lessons that are comprehensive enough to be applied to SFSC. Among them we look at: 1) the benefits in terms of capacity building, 2) the territorial ability to agree on the product identity specifications and develop governance structures that ensure compliance with quality criteria, equitable rent-sharing systems, supply management; 3) the participation of the stakeholders in the development of rules for collective action that could serve as a lever to secure their access to collectively developed resources; 4) the challenges involved in reconciling the various scales of governance in the technical and institutional innovation process. These lessons may have to be adjusted so as to take into account the specific role played by consumers and collectives in structuring SFSC.

3. A diversity of SFSC identities and a diversity of voluntary labelling opportunities

The growth of this market segmentation strategy and its extension beyond interpersonal relations (to conventional operators for example) raises questions about its institutional dimension. The products specifications and territorial resources that can be activated are at stake. In other words, it is necessary to clarify proximity relations in SFSC, both in their unity and diversity.

3.1. SFSC identities and proximity relations

Different studies suggest that SFSC encompass three main systems of values and practices, i.e. political models corresponding to different products' identity: alternative-ecologist, traditional-ruralist and neoliberal (Winter, 2006; Jouen and Lorenzi, 2012; Chiffoleau and Gauche, 2013). They are associated with different discourses, market organization and products characteristics, which indicates that there are divergent ways of institutionalizing quality in SFSC.

These models can be seen as networks of actors (logic of belonging) collectively referring to standards and common quality conventions (logic of similarity) that coordinate to develop SFSC. The proximity approach outlined above is useful for accounting for the diversity of these political models.

A key debate on the areas of convergence and divergence between SFSC concerns more particularly the conception of geographical proximity and its benefits. Political models can be analyzed as distinct social objectives and representations of proximity associated with SFSC. In this regard, they can be interpreted as the result of a specific political action linking representations on the basis of the nature of what constitutes these alternative agro-food systems, as well as attempts to impose (e.g., as the label) one of these representations on the other in the process of coordination between stakeholders, as well as in relation to consumers or in terms of public policy.

The *alternative-ecologist model* is based on the desire to modify consumption patterns by making environmental and social questions a central issue. It therefore promotes the positive role of geographic proximity in an attempt to reduce the environmental impact of production and especially distribution. It also promotes the advantages of direct relationships in terms of social capital building (EC(2013)25911), value creation and sharing. Based on autonomous local approaches, these initiatives, which are often experimental, generally depend on activist collectives that attempt to innovate in the field of consumer-producer relationships (Chiffoleau et al., 2013).

The *traditional-ruralist model* is based on the reinforcement and expansion of a regional and territorial approach to agriculture. In this case, the conception of geographical proximity is associated with values and customs, a shared identity and history within a territory. These shared representations are the result of the stakeholders belonging to the same specialized community, in that the actors share a sense of common destiny related to a common project, which helps them minimize opportunistic behaviours. In this case, the territorial component of the SFSC points to an attempt to restore a link between the consumer and the original product site. The conception of quality is close to that of PGI.

The *neoliberal representation* relays on a small scale and sector specific approach. The new expectations of consumers are viewed as an opportunity to extend the product range to "proximity products". The notion of proximity points to transportation issues (time and costs), and quality is associated with a reduced time period between production and consumption (freshness). In the spatial proximity model, the actors seek to reduce distance and the number of intermediaries between producers and consumers. However, in the case of relations based on organized proximity, geographic proximity is only minimally exploited. SFSC are used as a differentiation tool to deal with competition, without, however, radically breaking with the operating rationales of the long-chain supply networks.

3.2. Diversity of identities, diversity of opportunities for labelling

As mentioned in the introduction, the 2013 independent report (EC 25911) and the EC report (COM866) agree on the benefits of a labeling system for SFSC in cases where they are not based on interpersonal relationships and more on other criteria, provided that system remains a light[1] and optional instrument. Both reports are unclear on the way to achieve this goal. The independent report highlights the gap between the need for certification and control to limit fraud and the need to do it in a flexible manner at a limited cost. The articulation issue between the diversity of regional/national initiatives and the European approach is stressed. The report EC 25911 also highlights "that regulating activity should not be restricted to labelling but should include other policy support such as financial incentives, training and exchange of knowledge and skills, the development of regulatory and administrative frameworks." On this matter, EC (COM 866) stresses that the labelling scheme, even if limited to 'quality terms', is a way of opening access to other EU support mechanisms.

This political analysis of the diversity of SFSC provides the opportunity to shed light on the difficulties involved in reconciling SFSC approaches to the development of a common label. Despite the limits of interpersonal trust in the case of SFSC extension, the specific initiatives' hierarchy of values and institutions suggest difficulties in defining a common framework. Coordination in these different frameworks is based on different forms of proximity. The divergence between the approaches to institutionalizing SFSC is a difficult problem to solve.

Consequently, we can hypothesize that the institutional measures designed to support them must necessarily be flexible enough to take into account the different aspects and consider the institutional forms relevant to SFSC as well. We hypothesize that the innovation capacity and the construction of a collective reputation in the case of SFSC can be structured by organizing the proximity. While labelling supported by regulation and third party certification, as in the case of PGI, proves difficult to envisage for SFSC, a reflection based on a multi-scale approach to participatory certification could be an interesting path to follow. Requirements in terms of freshness, sustainability, the central role of producers and consumers, and contribution to sustainable territorial development would have to be specified, harmonized and guarantied at the level of a territory. SFSC development could also be supported at territorial level through the creation of SFSC management bodies and, eventually, investment in processing capacity or a logistics structure. One can also consider, on a larger scale, that common eligibility criteria structuring these different regional initiatives should be discussed and defined collectively by representatives (producers, intermediaries and consumers) of the different political SFSC models and by the public actors.

A limited number of eligibility criteria could be defined at European level to provide a framework for the development of a common identity, fostering information diffusion and transparency, opening access to public support and helping the stakeholders implement control tools. Within this European framework, Member states would be able to adjust this regulation to the specificities of their socio-economic contexts, in accordance with the principle of subsidiarity. Member states could limit their action to implementing the European criteria or may decide to go further. They could decide, in conjunction with stakeholders at national level, whether to develop a logo or a charter of good practices; the relevance of building a governance structure at national level could be discussed as well[2]. Thus, with a participatory, progressive and multi-scale approach, the benefits in terms of institutionalizing a minimum quality for SFSC and communication could be achieved while giving the actors concerned the opportunity to implement more stringent procedures and standards.

[1] "with low administrative, control and budgetary burden" (COM 866).

[2] In the case of France, the relevance of creating a section for SFSC in the INAO could be discussed for example.

Conclusion

The reference to SFSC in the new CAP reform for the 2014-2020 period and documents by the European Commission (EC 25911 and COM866) constitutes an institutional recognition of this local and bottom up approach, which seeks to modify producer-consumer relationships while raising the question of sectoral organization and productive and consumption practices. Nevertheless, this institutional success of SFSC approaches also raises questions about the necessity and potential advantages of implementing institutional mechanisms that would help sustain and expand the movement, and about the relevance of the solutions considered, such as labelling for instance.

In this paper we have underlined the variety in the forms of coordination among SFSC initiatives, as well as issues related to the institutionalization of mechanisms, most of which have until now, been based on an interpersonal trust rationale. On the basis of the institutional market analysis, we have emphasized the constructed nature and political dimension of these differentiation processes. We have proposed to analyze the diversity of SFSC using proximity economics as a framework for analysis, placing particular emphasis on different interpretations of geographical proximity. One of the main issues in the development of SFSC therefore seems to lie in the ability to articulate these various conceptions at different geographic scales. Facing the challenges of institutionalization, building compromise son participatory certification between stakeholders at territorial level may be a path to explore for effective solutions. However, as outlined in the EC reports, such a process requires government participation, not only in terms of regulation but also financial support to investments and training, so as to promote the development of structuring capabilities of collective action at different scales.

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ENHANCING THE FOREIGN DEMAND FOR AGRITOURISM

JEL classification: L83, Q17, F22

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Abstract. *Tourism is a major economic activity in Italy, and a growing sector in a vast majority of Countries. In particular, agritourism is a rapidly evolving sector. Studies on agritourism are increasing in number, although studies on determinants of the international demand for agritourism are still limited. We explore the international demand for agritourism in Italian structures by mean of a panel data approach. We underline the peculiarities of the international demand for agritourism, and the main determinants of small and large flows of foreign tourists.*

In order to enhance the attractiveness of agritourism, entrepreneurs and policymakers should focus their attention on targeted marketing campaigns that need to take into account the Countries of origin. Our paper aims at moving toward this goal.

Keywords: *Agritourism, Italy, PPML, Quantile Regression, Gravity model*

Introduction

A rapid evolutionary process has affected rural areas over the past few decades, leading to deep changes of their traditional socio-economic structure. Agricultural activities have been acknowledged to provide several benefit to the whole ecosystem: in particular, there is an increasing awareness that agricultural activities are multi-functional and that agriculture increases the diversification of economic activities in rural areas (Benton, 2012). The modern rurality contains greater complexity through which it seeks to respond to the new demands of the post-industrial society in terms of food safety, environmental protection, recreational needs and, in general, to improve the quality of life (Debailleul, 2001; Van Huylenbroeck et al., 2007; Van der Ploeg, 2009). Among the main changes that have affected rural areas in recent decades, agritourism and especially agritourism have rapidly captured the interest of entrepreneurs and policy makers.

The changing scenario of the tourism sector has encouraged the demand for agritourism at national and international level, hence the supply of agritourism is expanding rapidly. agritourism is appealing to a wider range of consumers. Driven by the need to escape from the hustle and bustle of city life, tourists express a high appreciation for the quietness of countryside and small villages, as well as for a more direct contact with the natural environment and the rediscovery of folklore and ancient traditions (Debailleul, 2001). On the other hand, policy makers have recognized to agritourism a strategic role in fostering the initiation and consolidation of sustainable

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rural development based primarily on local resources, both material (e.g. the ecosystem services needing protection) and intangible (history, culture, traditions, knowledge, skills) (MEA, 2005; NEA, 2011). agritourism is of crucial importance for several reasons: it helps preserving endangered resources that are likely to disappear (for example, many traditional products) or to be degraded (landscape, rural buildings, etc.) (NEA, 2011; LaPan and Barbieri 2014); it creates opportunities for employment and economic growth in marginal areas; it intensifies the interdependence between rural and urban areas (Benton, 2012). The current CAP reform, and in particular the writing of regional policies (PSR, Piani di Sviluppo Rurale), represents a unique opportunity for analysts and policymakers to reflect on the role of agritourism as catalyst for the economic growth. Our paper is provocative in that direction[1].

Agritourism has been studied in various contexts (e.g. Carpio et al., 2008; Scarpellini and Polidori, 2009; LaPan and Barbieri, 2014; Marangon, et al., 2013; Santeramo and Morelli, 2015; Capacci, et al. 2015; Santeramo and Barbieri, 2015; Kline et al., 2015)[2]. Yet the lack of a unique definition undermines deeper investigations. Indeed, scientists are still trying to reach a consensus on the definitions of different forms of tourism (Hall and Mitchell, 2005; Tikkanen, 2007; Phillip *et al.*, 2010). The Italian case is peculiar in that the agritouristic activities are regulated by a specific Law (DL 96, 20 February 2006), which defines agritourism as "accommodation and hospitality activities carried out by farmers […] through the utilization of their own farm in connection with the activities of cultivation of the land, of silviculture, and of the raising of animals". The presence of a specific regulation represents an ideal framework to analyze agritourism.

Further aspects make the present analysis of particular interest. The Italian rural areas have an extraordinary potential, not yet valorized: notwithstanding the existence of numerous and valuable business initiatives, Italian agritourism lacks an integrated system for agritourism. On the other hand, the expectations of tourists, as well as the demand for integrated services, are considerably growing. In this framework, an analysis of the international demand for Italian tourism is one of the key elements for policymakers and entrepreneurs aiming at improving the attractiveness and the competitiveness of Italian rural areas. The contribution we aim at providing to the specific literature is clear: while Santeramo (2015) analyzed the international demand for Italian agritourism, we complement the study deepening the understanding of aspects that determine incoming flows of foreign visitor in Italian agritourism.

This paper explores two main issues. Firstly, we evaluate the country-of-origin characteristics that are associated with larger arrivals of foreign visitors in Italy. Secondly, comparing the global demand for tourism and the demand for agritourism, we underline the peculiarities of agritourism. To this end, we estimate a gravity-type model on a panel data that covers more than ninety percent of foreign arrivals in Italian structures. By exploring the determinants of international demand for agritourism over time and by underlying the differences across Countries of origin, we aim at providing valuable information to entrepreneurs and policymakers.

The remainder of the paper is as follows: next section summarizes the current trends of the international demand for agritourism in Italy; the third and fourth paragraph are respectively dedicated to the description of the methodology and of the dataset; the last two sections comment the empirical results and provide conclusive remarks.

[1] The interested reader may refer to Sotte (2014), De Castro et al. (2014) as excellent reviews of the reform of rural policy.

[2] The interested reader may refer to Brown (2005) for an excellent, although dated, bibliography of agritourism papers.

International demand for Italian agritourism

agritourism is growing very rapidly driven by the increasing globalization and the sharp decline in travel costs (e.g. Pompl and Lavery 1993; Tchetchik et al., 2008), and by the rapid technological advances in agriculture that have pushed workforce to abandon the primary sector for the industry and the third sector (Serra et al., 2005; Tchetchik et al., 2008), while searching for alternative sources of income such as agritourism business (Butler, Hall, and Jenkins 1998).

The agritourism in Italy confirms those trends. During the last decade, the number of foreigner visitors in Italy has increased by two hundred percent. Indeed, more than one third of tourists hosted by Italian farmhouses are of foreign nationality and their number has considerably grown. The three hundreds thousands visitors registered in 2000 is small considering that the foreign customers of Italian agritourism have been more than eight hundreds thousands in 2010. The demand for Italian agritourism is very heterogeneous. The sector attracts visitors from all over the world, although the main partners (Germany, United Kingdom, USA, Netherlands, France, Switzerland) account for eighty percent of total international demand of agritourism in Italy[3].

German tourists are the most numerous: they accounts for fifty percent of the total international demand. A large number of tourists (8 percent of the total international demand) travels from the USA and Canada. Among the European citizens, English and Dutch visitors account, respectively, for 7 and 6 percent of the total. More modest is the demand from French and Swiss citizens, accounting for 5 percent each.

The arrivals of German tourists showed a decline, while streams of tourists from other Countries have increased, in particular from Countries that have had little relevance so far. In particular, differently from a general trend (+5.8 percent), arrivals from Germany have declined by 4 percent. Such a decreasing tendency is shared only by Israeli visitors, sensibly curtailed from 2002. In all other cases, the trend is positive. The expansion of the demand is particularly significant in rich (*e.g.* the United States of America, Switzerland) and close Countries (*e.g.* Spain, France, Czech Republic). The determinants of these trends are not a clear cut: why other rich and close Countries (e.g. Germany or Netherlands) show different trends is unclear.

The methodology

The Gravity Model is a workhorse in applied analysis of international trade and has been widely adopted to analyze trade (Rose, 2002; Dal Bianco et al., 2015), migration (Karemera et al., 2000) and tourism flows (Fourie and Santana-Gallego, 2011; Santeramo and Morelli, 2015)[4].

According to the gravity model, the bilateral volume of flows among countries is proportional to the “mass” of the Countries (proxied by Gross Domestic Product per capita, Population, or combinations of those variables), and inversely related to their respective distance:

$$(1) \quad X_{ijt} = G Y_{it}^{\alpha} Y_{jt}^{\beta} D_{ij}^{\delta}$$

where G is a scale factor, X_{ij} represents the trade or migration flow, Y_i and Y_j proxy the eco-

[3] Further insights on international demand for tourism in Italy can be found in Bertella (2011), Massidda et al. (2014), Santeramo (2015).

[4] The interested reader may refer to the extensive literature of gravity modelling in tourism studies: e.g. Gil-Pareja et al. (2007), Eryigit et al. (2010), Arita et al. (2011), Massidda et al. (2014).

nomic masses of Country of origin (i) and Country of destination (j), and D_{ij} is the distance between the two Countries. After log-linearization the gravity model can be rewritten as follows:

$$(2)\quad \ln X_{ij} = \alpha_0 + \alpha \ln Y_i + \beta \ln Y_j - y \ln D_{ij} + \varepsilon_{ij}$$

This fundamental model has been expanded to take into account other determinants of international flows. Several candidates should be taken into account: population, income per capita, exchange rates, commercial agreements, and the presence of a common language or colonial links.

In order to correctly estimate the gravity model it is important to account for the presence of zero flows and heteroskedasticity in the error term affect the gravity-type estimations. We follow Silva and Tenreyro (2006) and estimate a pseudo-Poisson Maximum Likelihood estimator (PPML), with the following set of first-order conditions:

$$(3)\quad \sum_{i=1}^{k} (X_k - \exp(Z_k\, \hat{a})) = 0$$

where X_k represents trade flows, Z_k is the full vector of explanatory covariates, exp (Z_k â) is the expected value of X_k conditional on covariates (i.e. $E[X_k\, vZ_k]$). Wooldridge (2002, p. 676) argues that PPML Z_k is consistent if the conditional mean is correctly specified, that is if $E[Z_k]$ = exp (Z_k â) holds. The property applies regardless of the count data adopted.

Lastly, we introduce a relatively novel approach for tourism studies: we estimate gravity-type models by using quantile counts regression techniques (Machado and Silva, 2005). To the best of our knowledge, this is one of the few empirical application of quantile regression in tourism economics. Standard linear regression techniques synthesize the average relationship among dependent and independent variables, based on the conditional mean function $E[Z_k]$. Such a relationship is able to provide a narrow view: we might be interested in describing the relationship at different points in the conditional distribution of X_k. For instance, the median function $Q_q[Z_k]$ describe the relationships at the median point (or 50th percentile, or quantile Q2), of the empirical distribution. Moreover, the quantile regression can be used to model conditional quantiles of the joint distribution of X_k and Z_k at selected quantiles. A further advantage is that quantile regression is more robust to outliers than least squares regression, does not rely on assumptions on the parametric distribution of the error process. Finally, the quantile regression estimator is asymptotically normally distributed (Koenker, 2005).

The dataset

The data-set span from 1998 to 2010 and includes data on thirty-three countries so as we account for more than ninety percent of the total agritourism flows to Italy. The dependent variable is the number of arrivals of foreigners to Italian agritouristic structure. The data was extracted from the database of the Italian Institute of Statistics (ISTAT). The total number of agritouristic structures and the number of beds are accurate proxies of the supply. The gross domestic product at purchasing power parity per capita, expressed in current U.S. dollars, was extracted from the World Economic Outlook Database of International Monetary Fund. Data for population, in millions of inhabitants, was obtained from the FAO database. The geographical distance among capitals, expressed in kilometers, is computed using the Haversine formula and coordinates from the extracted from the CIA's The World Factbook.

Tab. 1 - Definition of variables and descriptive statistics			
Variable name		**Mean**	**Std.dev**
Arrivalsjt	Foreign tourists in Italian structures from country j in year t (in .000 absolute value).	187.6	44.1
Arrivals_AGRjt	Foreign tourist in Italian agritourisms from country j in year t (in .000 absolute value).	13.4	37.9
Per-capita GPD jt	GDP per capita (current U.S. dollars) of country j, year t	22.4	16.4
Population jt	Total population (in millions) of country j, year t	99.1	262.3
Distanceij	The distance between Italy and country j in .000 kilometers	4.2	4.5
Structuresit	Number of Italian touristic structures (.000) in year t	112.7	29.1
Agritourismsit	Number of Italian agrituristic structures (.000) in year t	9.8	4.2
Euro j	1if country j has adopted the euro, 0 otherwise	0.30	0.46
Schengen agreement j	1if country j has signed Schengen agreement, 0 otherwise	0.16	0.37
Agricultual-Popjt	Agricultural population (in percent) of country j, year t	3.6	7.6
Rurality jt	Agricultural population (in percent) of country j, year t	26.5	13.6

The statistics are computed from a pooled sample.

A common practice in gravity model estimation to model the supply, is to use GDP to proxy output capacity. Nevertheless, while total GDP is appropriate for aggregated data, it may overestimate the effect of the Italian supply for tourism. We have proxied Italian supply with two specific variables: the number of touristic and agritouristic structures[5]. We expect a positive relationships with the number of arrivals and the total duration of stay.

On the demand side, the countries of origin's purchasing capacity has been proxied by per capita GDP at PPP, while the effect of the economy size is captured by the total population. We expect a positive sign for both determinants. The expected signs of the variables "Rurality" and "Agricultual-Pop" may be ambiguous. In line with Santeramo (2015), we expect a negative relationship: the higher the urbanization of the Country of origin, the higher the demand for agritourism would be; in other terms, the higher the percentage of population living in rural areas, and working in agricultural sector, the lower the demand for agritourism.

Frictions are a major issue in international dynamics. The geographical distance between Italy and the Country of origin proxies travel costs. Although distance is the main friction to international flows (Disdier and Head, 2008), transaction costs may play a significant role: dummies on international agreements are adopted to proxy those costs. The variable "Euro" is equal to one if the country of origin has adopted the Euro currency, and zero otherwise. Sharing the same currency should facilitate movements of tourists. The variable "Schengen agreement" is one if the county of origin has signed the agreement, zero otherwise[6]. The agreement may have enhanced touristic flows. While these dummies are relevant for international trade, we cast doubts on their relevance in this niche. If and how effective are these friction for the international demand of agritourism is an empirical question.

[5] We have also included the total number of beds in touristic and agritouristic structures. The results are not different, therefore we have considered only the number of structures for the present analysis.

[6] EU Accession Negotiations began on 31 March 1998 for Cyprus, Estonia, Hungary, Poland, the Czech Republic and Slovenia. On 15 February 2000 the agreements has been expanded to include Bulgaria, Latvia, Lithuania, Malta, Romania and Slovakia.

Results

The results on the factors that influence the international demand for Italian agritourism are presented in Table 2. We present the final specification on four different dependent variables: number of arrivals and duration of stay within the touristic sector, number of arrivals and duration of stay within the agritouristic sector.

Tab. 2 - Determinants of foreign arrivals in Italian structures

	Touristic sector		Agritouristic sector	
Dependent variable:	**Arrivals**	**Duration of stay**	**Arrivals**	**Duration of stay**
Supply				
Number of structures	0.027 (1.34)	0.015 (0.86)		
Number of agritourism			0.139 (6.49)**	0.090 (5.05)**
Demand				
Per-capita GPD	0.001 (0.19)	0.000 (0.04)	0.016 (2.50)*	0.011 (2.06)*
Population	0.062 (13.07)**	0.056 (13.07)**	0.077 (11.15)**	0.063 (10.40)**
Rurality	-0.002 (6.02)**	-0.003 (6.73)**	-0.005 (9.27)**	-0.004 (9.00)**
Agriculture*Rurality	-0.011 (7.17)**	-0.008 (6.12)**	-0.017 (7.06)**	-0.013 (6.62)**
Frictions				
Distance	-0.102 (13.28)**	-0.112 (16.88)**	-0.130 (11.03)**	-0.116 (11.28)**
Schengen agreement	0.036 (2.92)**	0.030 (2.57)*	0.073 (3.96)**	0.058 (3.76)**
Euro	0.019 (1.50)	0.011 (0.84)	0.025 (1.39)	0.025 (1.58)
Constant	2.294 (9.62)**	2.719 (13.15)**	0.963 (4.34)**	1.671 (8.96)**
R2	0.59	0.63	0.59	0.57
Observations	466	466	466	466

+ $p<0.1$; * $p<0.05$; ** $p<0.01$

Results show that the Italian supply is a major determinant for agritourism (the variable is statistically significant at 1% level), but this is not generally true for tourism. Intuitively, being a small share of Italy's touristic sector, demand for agritourism can be incremented by expanding the supply. Therefore, Italy should increase the proportion of agritourism with respect to the usual touristic structures in order to increase the international demand for tourism in Italy[7].

The results for the demand side are of particular interest. All variables are statistically significant (except for "Per-capita GDP" in touristic sector), but not all determinants have the same importance. We found that the richer the Countries, and the richer the tourists, the higher the

[7] Our results are consistent with those in Santeramo (2015).

demand for Italian agritourism. This is not clear cut for the whole touristic sector. The issue is further discussed below. Moreover, the larger the population, the higher the demand for tourism in Italy. Our study suggests Italian entrepreneurs intending to expand their business to target populous countries, possibly with a solid growth in income per-capita. The variables "Rurality" and "Agricultual-Pop" show that the higher the percentage of population living in rural areas (say 1% increase), and working in agricultural sector, the lower the demand for tourism. The effect is twice as large for agritourism[8].

As for the frictions in international tourism, we found that "Distance" is negative and statistically significant at 1% level. The coefficients suggest that distance affect rural demand more than general demand for tourism, but is equally influential on the duration of stay.

While the variable "Euro" is not statistically significant, the "Schengen agreement" have enhanced international demand for tourism. The results reinforce the findings in Santeramo (2015). Relying on a larger dataset we have been able to assess the impact of those variables with a larger degree of accuracy.

Tab. 3 - Quantile regression of determinants on arrivals of foreign visitors in Italian structures

	Touristic sector			Agritouristic sector		
Dependent variable:	**Q1**	**Q2**	**Q3**	**Q1**	**Q2**	**Q3**
Supply						
Number of structures	0.044	0.051	0.030			
	(2.05)*	(2.13)*	(1.01)			
Number of agritourism				0.158	0.192	0.116
				(5.41)**	(6.06)**	(4.87)**
Demand						
Per-capita GPD	0.001	-0.000	0.009	0.023	0.006	0.032
	(0.53)	(0.03)	(2.17)*	(4.25)**	(0.68)	(5.96)**
Population	0.067	0.076	0.054	0.070	0.081	0.083
	(8.26)**	(13.02)**	(5.70)**	(5.36)**	(6.87)**	(12.30)**
Rurality	-0.003	-0.002	-0.004	-0.006	-0.008	-0.004
	(6.26)**	(4.70)**	(5.35)**	(8.67)**	(7.29)**	(3.99)**
Agriculture*Rurality	-0.009	-0.013	-0.006	-0.012	-0.005	-0.021
	(4.18)**	(4.28)**	(2.38)*	(4.04)**	(1.15)	(7.16)**
Frictions						
Distance	-0.125	-0.133	-0.093	-0.140	-0.182	-0.100
	(15.49)**	(15.52)**	(7.03)**	(6.16)**	(9.96)**	(7.77)**
Schengen agreement	0.022	0.026	0.022	0.044	0.103	0.039
	(1.28)	(1.54)	(1.41)	(1.53)	(2.84)**	(1.80)+
Euro	-0.011	-0.005	0.053	-0.018	-0.003	0.045
	(0.69)	(0.30)	(3.59)**	(0.62)	(0.09)	(2.14)*
Constant	2.231	2.106	2.277	0.907	0.876	0.798
	(9.05)**	(6.59)**	(6.39)**	(2.98)**	(2.93)**	(3.56)**
Observations	466	466	466	466	466	466

+ $p<0.1$; * $p<0.05$; ** $p<0.01$

[8] For instance, dwellers of low rural Countries, such as those from Belgium, Luxembourg, Australia, Israel, Argentina, United Kingdom, Germany, Venezuela, New Zealand, Denmark, Brazil, Sweden, are more likely to be customers of Italian agritourism. *Ceteris paribus*, tourists from South Africa, Slovak Republic, Portugal, Slovenia and China (the most rural Countries in our sample) are less likely to choose Italian agritourism for vacation.

Table 4 summarizes the estimation by mean of quantile regressions. We present the results obtained at three quantiles: the 25th percentile, the 50th percentile and the 75th percentile. A vast majority of results are confirmed, other deserve further discussion. In particular, the relationships with number of structures and agritourisms and distance are stronger at median point than at different quantiles. This implies that the level of income and travel costs are not major determinants in explaining small and large flows. Put differently, the international demand for agritourism should be enhanced by promoting marketing campaigns in distant and income-growing Countries.

Conclusions

The rapid expansion of agritouristic supply and of the demand for agritourism have motivated the present analysis. Our empirical investigation provides interesting insights for at least two reasons. Firstly, Italy is a major destination for international tourists from all over the world. Secondly, agritourism in Italy has expanded much more rapidly than the entire touristic sector, posing strong foundations for an empirical analysis of the determinants of international demand for agritourism. We have gravity-type models to explore the determinants of international demand for Italian agritourism. Quantile count specifications have also been estimated.

Our results are consistent with those in Santeramo (2015), and add further insights. We found that, while the touristic sector is mature in Italy, the agritouristic sector is a niche that would benefit from an expansion of the supply. Entrepreneurs should explore the potential gains in agritourism, and policymakers should promote the diversification of the touristic offer. Richer and growing Countries are the right targets. Moreover, the larger the urbanization, the higher the probability to attract new tourists would be. Obviously, these considerations, and the relative policy or business recommendations, are stronger for closer Countries.

The great turmoil that is animating Italian, and EU, agriculture during these months call for new interventions to promote agritourism. The current debate on the PSR (*Piani di Sviluppo Rurale*) represents a unique occasion to help the primary sector to exploit the opportunities provided the reformed Common Agricultural Policy. Although analyzing regional policies is beyond the scope of the present article, our findings will help policymakers currently debating on the future for agritourism.

The analysis is not exempt from limitations. Firstly, as recently pointed by Guizzardi and Bernini (2012), underreporting is an important issue in official sources on tourism. The authors alert that the bias is as large as 16%, on average, over the period 2007-2009, suggesting to explicitly consider this measurement error into account. Indeed, underreporting would generally weaken the significance level of our estimates, leaving the direction of causality unaltered. Therefore, the implications we provide are still valid. Secondly, the analysis is Country-specific and results cannot be directly generalized. Indeed, the peculiarity of the agritourism complicates the feasibility of empirical analysis, limiting the feasibility of comparing the results with existing literature. However, this apparent weakness makes it valuable our investigation in that it adds novelty to the current knowledge in tourisms economics, leaving open the debate to future researches.

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REVEALED PREFERENCE APPROACH FOR ANALYSING CONSUMER PREFERENCES: A CHOICE EXPERIMENT WITH A REAL-LIFE SETTING

JEL classification: D12, Q13

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Abstract. *Recent years have witnessed increasing food product differentiation, also involving those products that can be termed mature. One example is pasta, a well-integrated product in the daily consumption habits of Italians. In this case, product differentiation has increasingly focused on extrinsic attributes. In our study we analysed the WTP of consumers for the attributes that define pasta. We used a choice model experiment to elicit consumer preferences on the basis of actual and not hypothetical choices as usually occurs. Analysis of the results generated three main considerations: first, real choices led to WTPs consistent with the market price of the products; secondly, brand and label emerged as the most important attributes in the choice; finally, a considerable share of consumers is willing to pay a premium price for what are perceived as quality attributes. This suggests that further market opportunities exist for pasta products.*

Keywords: *random utility model, revealed preferences, pasta, Italy.*

1. Introduction

In the last two decades, food demand has undergone profound changes while food producers have implemented a wide range of technological innovations and marketing strategies related to boosting consumer interest in products with a larger array of attributes (Caracciolo et al., 2011). This differentiation process involves both experiential eating quality and credence attributes related to environmental and other social concerns. Consumer perception of quality is increasingly influenced by the product's extrinsic indicators and cues provided by the product (Caswell et al., 2002). Many of these aspects are classified into credence attributes. Due to the well-known difficulties obtaining related information directly from consumers even after food consumption (Nelson, 1970; Grunert et al., 2004), credence attributes require a certification by an authority figure such as a government agency, or organisations that consumers trust, to give information on them (Caswell and Mojduszka, 1996). Currently consumer needs increasingly require more articulated credence attributes to include a wide range of intangible and pooled characteristics such as environmental conservation, indication of geographical origin,

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and support for local rural communities and workers' rights (Moser et al., 2011). Therefore, new systems of certification, both public and private, have proliferated within the food market. Processors and retailers have developed and adopted private standards in order to establish new standards or replacing public standards. In addition, food companies have been able to reduce costs and risks in their supply chains by standardising products across suppliers; and they have managed to increase competitiveness and profits thanks to product differentiation as well. In particular, firms have been able to use their own standards as a strategic tool for market penetration and segmentation. In this way, consumers might perceive higher quality products because of quality or labour and environmental standards certification (Henson and Reardon, 2005; Gereffi and Lee, 2009, De Magistris et al., 2012).

This evolution has involved all food categories, from innovative products to deeply traditional food, such as dried pasta. In particular, pasta is a staple food characterised by maturity stages in the product life cycle. Thanks to its low price positioning, any price change has minor effects on purchases compared to what happens to more expensive products. Quality attributes in this specific case become relevant to consumer choice, because sale price differences across producers are often driven by quality attributes including hedonistic and socio-cultural aspects (Di Monaco et al. 2004).

In addition, since pasta is a traditional component in the Italian diet, hence well known by consumers, the latest marketing strategies are mainly based on extrinsic attributes such as the geographical origin of the durum wheat used or some specific characteristics of the production process.

The aim of this study was to analyse the effect of these extrinsic attributes on consumer willingness to pay (WTP). This study is quite innovative due to the product under analysis and the specific empirical methodology used to elicit consumer preferences. A real-life setting approach was used to structure the choice experiment, to examine the consumer's effective choice of pasta and estimate trade-off among concrete extrinsic cues. The remainder of the paper is organised as follows. In Section 2 the sample design, data collection process and the methodology are described. Section 3 presents the estimates of the discrete choice models used to assess consumer preferences towards dried pasta attributes. The last section comprises the discussion, study limitations and some concluding remarks.

2. Methods and data

Econometric models belonging to the choice model family are generally used to elicit consumer preferences on the basis of hypothetical choices. Interviewees indicate their preferences by choosing from a controlled set of hypothetical products (Caracciolo et al., 2011). Each product being a combination of several a priori fixed attributes, respondents are forced to trade off between levels of the studied variables. Conjoint analysis quantifies the trade-offs among several attributes and their importance in terms of WTP in consumers' choices (Hanemann and Kanninen, 1996). From the scientific literature on this topic the main limit of hypothetical choices is known to be the lack of realism in the simulated task, resulting in differences between the hypothetical and real willingness to pay. The extent to which individuals might behave inconsistently when they do not have to back up their choices with real commitments is linked to the notion of hypothetical bias (Hensher, 2010). Moreover, Hawthorne effects may bias the results of choice experiments. The recent variants of choice experiments represent the most advanced methods to analyse preferences. Many limits shown by classical approaches have been overcome. One example entails overcoming the homogeneity of preferences through the random parameter Logit able to model the taste heterogeneity of the target population.

The only limit still unsolved and the most challenging, however, lies in the lack of competitive value possessed by the hypothetical choice sets submitted to respondents. Although recent techniques implementing experimental design allow a more realistic choice set to be obtained, the representation of products belonging to different competitive groups as perceived by consumers on a supermarket shelf is still far away. In this paper we merged the typical approach of experimental economics with the classical implementation of the choice model. This methodology differs from others reported in the literature where the attempt to mitigate the hypothetical bias of choice experiment is achieved through an auction approach. In most reported studies (Lusk and Schroeder, 2004; Johansson-Stenman and Svedsäter, 2008; Alfnes et al., 2006; Moser et al., 2010), respondents are informed before starting the survey about the rules of the auction. At the end of the choice experiment, one of the choice cards is randomly selected and they have to buy the product chosen (Hensher, 2010).

Our study differs from other real choice experiments reported elsewhere because respondents were interviewed directly at the shelf of a large hypermarket just after they bought a box of pasta. Therefore, in this case we analyse real choices, using actual prices, and the likelihood of consumer choice is then maximised since products, purchases and consumer experiences are real. This approach was first suggested in the pasta sector by Cembalo et al. (2008).

In order to obtain point estimates of the consumers' willingness to pay for several attributes in the pasta market, a conditional logistic regression model (McFadden 1973; Chamberlain, 1979) is applied to the real choices of spaghetti pasta. Formally, given a number 1, 2, ..., J of spaghetti pasta alternatives available on the shelf to the *ith* consumer (in our case J = 6), the outcome of the choice experiment, the purchase decision for alternative *j* by the *i*th individual interviewed, is represented by y_{ij}. It indicates that alternative *j* was purchased, $y_{ij} = 1$, or not $y_{ij} = 0$, by the *i-th* individual interviewed, with *j* ÎJ alternatives.

We may represent each observed purchase decision, y_{ij}, as the outcome of an income-constrained utility maximisation exercise: U_{ij} being the utility associated by the *i-th* individual to alternative *j*, we state that $U_{ij} \geq U_{ik}$ when $y_{ij} > y_{ik}$, for each alternative *j* in the choice set J, with utility U_{ij} being the sum of an observable component μ_{ij} and a stochastic component ε_{ij}:

$$U_{ij} = \mu_{ij} + \varepsilon_{ij} \quad [1]$$

This theoretical framework is conducive to classic well-known random utility maximisation analysis: in his seminal paper McFadden (1974) showed that under the assumption that an unobservable utility component ε_{ij} or error term is assumed to have a type one extreme value distribution, observed discrete choices may be modelled using the conditional logit model consistently with the assumption of utility maximisation.

Commonly (Train, 2009; Cicia et al., 2002), the observable component μ_{ij} is decomposed into a linear function of explanatory variables; in the specific case we assume the observable component μ_{ij} function of *p* specific variables such that x_{ij} constitutes a $(1 \times p)$ vector of pasta attributes, that vary only over *j* alternatives. Therefore equation 1 can be represented as:

$$U_{ij} = x_{ij}'\beta + \varepsilon_{ij} \quad [2]$$

where β is the conformable $(p \times 1)$ vector of parameters for the alternative specific variables.

To maximise his/her utility the consumer is assumed to choose the alternative with the most desired set of attributes. The probability of the individual purchasing alternative j, $y_{ij} = 1$, across the set of other possible alternatives J is defined by the probability that the utility of alternative j is greater than, or equal to, the utility accruing on each and every other alternative within the choice set:

$$\Pr(U_{ij}) = \Pr\{U_{ij} > \max(U_{ik},\ldots,U_{iJ})\} \quad [3]$$

According to McFadden (1974) if ε_{ij} are *iid* Gumbel distributed, then the probability of choosing alternative j is logit:

$$\Pr(U_{ij}) = \frac{e^{x_{ij}'\beta}}{\sum_{J=1}^{J} e^{x_{ij}'\beta}} \quad J = 1,\ldots, J. \quad [4]$$

Empirically, the model can be estimated using maximum likelihood estimation, providing estimates of the parameters of vectors x_{ij}, ensuring that $0 < \Pr(U_{ij}) < 1$ and $\sum_{J=1}^{J} \Pr(U_{ij}) = 1$.

Data used in the analysis were gathered in a large grocery retailer in the Naples area during autumn 2013. The participants were actual buyers of pasta interviewed after they chose at least one box of pasta from the shelf. The questionnaire was structured into different information areas. The first part of the questionnaire focused on evaluating ten pasta attributes. The attributes considered are intrinsic (such as size, colour and roughness) and extrinsic (such as production region packaging, advertising operated by the brand, experience of the product, etc.). The chosen attributes were suggested from the literature and from two focus groups conducted during spring 2013. More precisely, consumers had to rate each attribute using a Likert scale ranging from 1 to 7, where 1 means "completely unimportant " and 7 "extremely important". The ten attributes and their relative importance according to the interviewees are listed in table 1.

Tab. 1 - Importance of the attributes as reported by consumers

Attributes	**Mean**	**Standard Deviation**	**Included in the choice model as:**
Resistance to overcooking "al dente"	6.49	1.22	Protein gr/100gr
Roughness (bronze die)	6.20	2.17	Bronze die *(dummy)*
Local Origin	5.96	1.27	Made in Campania *(dummy)*
Price	5.64	2.28	Price/500gr
Craftsmanship	5.16	1.45	*dummy*
Labeling	5.03	1.50	Extra information on label *(dummy)*
Colour	4.64	2.23	Not included
Packaging	4.60	2.25	Plastic/Cardboard *(dummy)*
Organic Certification	3.81	1.88	*dummy*
Known brand	3.18	2.09	Market share > 10% *(dummy)*
Villa Santo Stefano	Yes	Yes	1.500

Evaluation of the attributes (Table 1) shows that the most important features for pasta consumers are intrinsic ones; because of its traditional consumption, preferences are strongly influenced by experience. Furthermore, some influence is due to extrinsic characteristics such as origin or some specific characteristics of the production process on which most of the latest marketing strategies are based. Price is not an attribute of primary importance because price competitiveness has minor effects on purchases, pasta being a traditional product of the Italian diet.

The second part was designed to record consumers' pasta purchase choices. In the experimental design, the complete assortment of spaghetti pasta boxes on the shelf was the choice set. Spaghetti brands in the assortment comprised Divella, Garofalo, Baronia, De Cecco, Voiello and Barilla (Table 2). In 2013 those six brands covered 62,2%, in value, of the Italian market for dry pasta: Barilla (32,7%); De Cecco (11,7%); Di Vella (8%); Garofalo (6,3%); Voiello (3,3%); Baronia (0,2%) (Infodata, 2015).

The ten most important attributes for consumers were translated into information that the consumer could acquire from the pasta box observation before purchasing:

- *Resistance to overcooking "al dente"* = Protein quantity (gr/100 gr), which influences cooking performance;
- *Roughness* = Bronze die. In general, this characteristic identifies quality products as this pasta can hold seasoning better;
- *Local Origin* = Campania. This region has an age-old tradition in high quality pasta production (Gargiulo and Quintavalle, 1983). Pasta di Gragnano, made in the Sorrento Peninsula, was the first PGI pasta certified in Europe;
- *Price* = Price/500gr;
- *Craftsmanship* = Traditional pasta shape recalling craftsmanship;
- *Labeling* = Nutritional properties of pasta and information about certification and traceability. Labels can ensure the right execution of the production process, but they can also cover ethical issues, such as respect towards the environment or towards employees;
- *Colour* = strictly subjective (not used in the econometric model);
- *Packaging* = Plastic packaging or cardboard;
- *Organic certification* = Presence of an EU-certified label;
- *Known Brand* = Identifies the products of companies with a market share greater then 10%.

Table 2 shows brands and attributes of spaghetti pasta in the choice set.

Finally, the third part of the questionnaire focused on socio-demographic variables.

A total of 163 respondents from a large grocery retailer in Naples (Italy) were successfully interviewed.

Tab. 2 - Brands and attributes of brand assortment						
	Barilla	**Divella**	**Garofalo**	**Baronia**	**Voiello**	**De Cecco**
Price (€/500g)	0.65	0.55	1.15	0.89	0.99	1.15
Protein (gr/100gr)	13	12	14	13.5	14	13
Labeling	0	0	1	1	0	0
Brand	1	0	0	0	0	1
Bronze die	0	0	0	1	1	1
Organic	0	0	0	1	0	0
Made in Campania	0	0	1	1	1	0
Packaging	Cardboard	Plastic	Plastic	Cardboard	Plastic	Plastic
Craftsmanship	0	0	1	1	0	0

3. Results and discussion

In this work we merged revealed preferences with the classic choice model approach. The attributes and levels were defined ex-post on the basis of the available information on the packaging and according to their importance as expressed by consumers. The price was that displayed on the shelf. Using the real competitive scenario for consumers' choices allowed results to be obtained with less hypothetical bias, a factor of particular importance for evaluating WTP for extrinsic intangible attributes.

The estimation results (Table 3) provide information about consumer preferences for different attributes of pasta. We report only statistically significant characteristics among the attributes analysed above. The model results show quite clearly that brand, price and label characteristics positively affect consumers' preferences. The protein content is the only statistically significant intrinsic attribute. Finally, Campania origin negatively affects preferences.

Willingness to pay was indirectly estimated by calculating the implicit prices of the different attributes (Table 3). The highest WTP (€0.307) is related to the "brand". The second WTP concerns the "label" and the lowest implicit price is for "protein". Estimated WTP for each attribute is consistent with the market price of each product.

We tried to adopt a log-normal distribution by the inverse of the price attribute, assuming a quadratic trend of the utility function. In this case, however, convergence is reached. As regards interpretation of the results, it is clear from the final model that there is no taste heterogeneity for the attributes across the respondents with the exclusion of price. This could stem from the sampling design which included only one retailer in a specific location, reducing variability across respondents. Price is the attribute showing preference heterogeneity across consumers. Consumers, in line with the theory, prefer to pay as little as possible for a product. However, there is a small percentage of respondents who use price as an indicator of quality. A very small fraction of consumers (2.2% of the total) were indeed price-indifferent.

Tab. 3 - Fixed parameter logit (FPL) and random parameter logit (RPL)					
	FPL		RPL		WTP
Log-L	-313.962		-312.196		
Pseudo R^2	0.17		0.18		
	Coefficient	p-value	Coefficient	p-value	
Label	1.092	0.045	1.46	0.026	0.194 €/500g**
Brand	1.925	0.000	2.189	0.000	68.605
Made in Campania	-1.692	0.000	-2.033	0.000	1.500
Protein	0.708	0.000	0.798	0.000	
Price μ	-6.263	0.000	-7.618	0.000	
Price σ			3.32	0.007	1.500

4. Conclusions

The analysis carried out in the paper aimed to evaluate the effectiveness of different dried pasta attributes in contributing to consumer perception of quality. The attributes found to affect consumer preferences were extrinsic attributes such as brand and label; intrinsic product attributes such as pasta proteins were also well evaluated. Consumers perceived protein content as a proxy for intrinsic pasta quality. Its importance was due to repeated purchases after experiencing the product.

Our results allow three important considerations to be made. First, with regard to the approach adopted in the experiment, through the real competitive scenario for consumer choices we minimised hypothetical bias, and the estimated WTP for each attribute was consistent with the market price of each product.

The other considerations concern the operative implications of the results. In general, the attributes that affected consumer choices were brand and label. Intrinsic product attributes, such as protein content, seem to have had little influence. Origin had a negative influence on real choices.

Consumers ranked intrinsic attributes as the most important features. Real choices reveal that the guiding attribute was brand. For a specific segment (2.2% of the total), price had no significant effect on the choices. We can conclude that market development strategies for dried pasta must necessarily consider advertising and image as key elements.

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ISSN 1722-4365