

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## Journal of Rural Studies

journal homepage: [www.elsevier.com/locate/jrurstud](http://www.elsevier.com/locate/jrurstud)

# Cooperation and competition among agricultural advisory service providers. The case of pesticides use



Claude Compagnone\*, Béatrice Simon

AgroSup Dijon, INRA, Université Bourgogne Franche-Comté, UMR CESAER, 26 Bd du docteur Petitjean, F - 21000 Dijon, France

## 1. Introduction

A transformation of the agricultural advisory system has occurred since the 1980s in many European countries, one characterized by a withdrawal of State involvement and an increased role for private, commercial service providers (Garforth et al., 2003; Kid et al., 2000; Laurent et al., 2006; Leeuwis, 2000). A diverse range of advisory services has emerged, resulting in a pluralistic agricultural advisory system (Birner et al., 2009; Labarthe and Laurent, 2013) that functions as a 'knowledge market' (Klerkx and Proctor, 2013; Leeuwis, 2000). One goal of privatization was to favor competition between companies to improve effectiveness in providing advice to farmers and land managers (Klerkx et al., 2006; Klerkx and Proctor, 2013). According to various authors, privatization and competition among advisors, the commoditization of knowledge and the rise of the client-oriented perspective has led to a fragmentation of the advisory system and a decrease in information exchange among advisors (Garforth et al., 2003; Klerkx et al., 2006; Labarthe, 2009; Laurent et al., 2006; Leeuwis, 2000).

More recent studies have shown, however, that this assumed collapse of interaction between advisors is not borne out in actual practice, with field advisors in fact seeking to become more reliant on each other to provide relevant advice to farmers. Focusing on the links between advisors and on the networks created by these links, such studies help us see how advisors cooperate across organizational and professional boundaries to access and exchange expertise, knowledge, and/or clients, or to carry out projects together (Bourne et al., 2017; Klerkx and Proctor, 2013; Phillipson et al., 2016; Proctor et al., 2012; Vrain and Lovett, 2016). In their ordinary work, advisors maintain cooperative and competitive relationships with one another. Phillipson et al. (2016) thus describe "a movement towards interprofessional working" of advisors in the UK in recent decades, prompted in part by a transition within agriculture towards sustainable development. Some of these studies rely on Social Network Analysis (SNA) and/or the concept of social capital (Bourne et al., 2017; Klerkx and Proctor, 2013).

In line with these recent works addressing the question of cooperation and competition among advisors (Klerkx and Proctor, 2013;

Phillipson et al., 2016), the present paper, based on a case study in France, aims to show how advisors working in the same geographic area but belonging to different organizations engage in relationships of both competition and cooperation, and in so doing develop a singular form of coordination.

In France, as in other countries, advisory services are currently provided by a mixture of public-sector, private-sector, and/or third-sector (farmer-based) organizations (Birner et al., 2009; Prager et al., 2016; Umali and Schwartz, 1994). France presents a distinct situation in several respects, however. Prager et al. (2016) – relying on research in Belgium, Italy, Ireland, and the UK – highlight a distinction within the private sector between independent private consultants, private companies providing agricultural inputs, and private companies engaged in the processing of agricultural products; but in France there are relatively few private consultants. In addition, in France the third sector is essentially made up of cooperatives, and the key actor in the public sector are Chambers of Agriculture<sup>1</sup> (*chambres d'agriculture*), which are public institutions overseen by farmers according to the terms of a co-management agreement between farmers' unions and the French government (Compagnone et al., 2008). Chambers of Agriculture, present in all 101 French departments, played a central role in agricultural modernization in France during the second half of the 20th century, providing extension services to farmers free of charge or at low cost.<sup>2</sup> Since the early 2000s, however, faced with a steady decline in public funding for this advisory system, Chambers of Agriculture have been increasingly obliged to charge fees for their services, engaging in a trend toward commercialisation (Petit et al., 2011). As a result, the social space of agricultural advisory services is undergoing a process of reconfiguration.

As in other countries (Vrain and Lovett, 2016), the nature of the agronomic advice provided is also changing, with environmental and health concerns occupying a more prominent position within the range of recommendations and guidelines offered to farmers. In the sphere of pest management or crop protection, reductions in pesticide use and the implementation of alternative agricultural practices are increasingly being promoted (Compagnone and Hellec, 2015).

\* Corresponding author.

E-mail address: [claud.compagnone@agrosupdijon.fr](mailto:claud.compagnone@agrosupdijon.fr) (C. Compagnone).

<sup>1</sup> They were created in 1924 and were given advisory functions in 1950.

<sup>2</sup> These extension services were partially funded by farmers' subscriptions fees. Only specific sub-populations, such as farmers facing economic hardship, some young farmers, or specific farmers' groups had access to fully free services.

The research described here deals with the question of reducing pesticide use. A number of studies have described the social and political sensitivity of this issue (Cerf et al., 2017; Klerkx and Jansen, 2010; Nelles and Visetnoi, 2016; Vrain and Lovett, 2016; Wolf, 1995). In France, the national Ecophyto plan, which organizes networking among different advisory organizations to reduce pesticide use, was launched by the government in 2008<sup>3</sup> (Cerf et al., 2017; Guichard et al., 2017). While public policy objectives seek to reduce point-source and diffuse pollution, farmer uptake of relevant practices to achieve these goals remains weak.<sup>4</sup> One explanation for this may lie in the different kinds of advice farmers receive with regard to pesticide use from commercial organizations as opposed to public organizations. Some authors have shown that input suppliers have an economic interest in selling pesticides and that farmers see an economic interest in using them to protect their crops and thus their revenues (Guichard et al., 2017), while other authors have argued that public sector advisors are engaged in the defense of natural common goods (Garforth et al., 2003) and thus must seek to reduce pesticide use (e.g. Klerkx et al., 2006). Public sector advisors' influence is limited, however, since fertilizer and pesticide dealers have greater access to farmers, in France<sup>5</sup> as in other countries (Wolf, 1995), and thus can exert a greater influence on them.

Nevertheless, as noted above, researchers have begun to identify a trend toward increased networking among advisory actors, rather than increased fragmentation (Klerkx and Proctor, 2013; Phillipson et al., 2016). In terms of reducing pesticide use, several questions emerge with respect to this movement toward increased networking. For instance: Does networking relate primarily to certain technical issues, as suggested by Vrain and Lovett's (2016) case study focusing on advisory services to help farmers reduce water pollution? Does networking develop preferentially in the back-office (production of technical resources) or the front-office (extension services) (Eastwood et al., 2017)? How does networking involve different dimensions of the advisory market, in which organizations are obliged to meet both farmers' and societal demands while also competing with one another to sell their products (echoing Klerkx et al.'s (2006) distinction between the economic and substantive demands of farmers)? In other words, to address this issue it seems critical to identify both the extent of the relationships between advisors in a given area and the balance of power among these different actors.

## 2. Understanding competition and cooperation among service providers

Our approach draws on the theory of cooperation among competitors as developed within economic sociology, particularly by Lazega (Lazega, 2001; Lazega and Mounier, 2002) following the work of Harrison White (2001). Lazega relies on the concept of *associés-rivaux* (associate-rivals), first proposed by the French sociologist François Bourricaud (1961). As Lazega notes (2009, p.533), "in the context of uncertainty, actors ... frequently cooperate on certain projects while remaining competitors in other respects." Bourricaud's concept is

<sup>3</sup> A network of 1900 farms (the Dephy Farm Network) was established between 2010 and 2014 to test the efficiency of different practices for reducing pesticide use, to develop references and demonstrate new practices.

<sup>4</sup> Pesticide use is calculated from determination of the NODU, or "*NOMBRE de Doses Unités*" (number of unit doses), i.e. the average number of treatments for all crops, for one year, at the national level. NODU makes it possible to specify the average number of treatments per hectare. NODU increased 5.8% between 2011 and 2012-2013 and 2012-2013-2014, with a jump of 9.4% from 2013 to 2014 (MAAF, 2015).

<sup>5</sup> In France, it is estimated that private companies and cooperatives employ 12,500 advisory agents, while just 6000 agents work for chambers of agriculture (CGAER, 2014). Furthermore, we have seen in comprehensive interviews with about twenty respondents that private company and cooperative employees spend four-fifths of their time in front-office activities with farmers (Compagnone, 2014; Compagnone and Golé, 2011; Compagnone and Hellec, 2015), whereas a survey of 300 public-sector employees found that these employees spend between one-fifth and two-fifths of their time in such activities (Petit et al., 2011).

related to that of polyarchy, a form of government (neither a dictatorship nor a democracy) described by the American political scientist Dahl (1956). In a polyarchy, power is distributed among several individuals, so individuals cannot get rid of each other and thus have no choice but to negotiate. Similarly, Tunstall (1971), studying professional relationships among journalists, described the ambivalence of such relationships using the concept of the *competitor colleague* (Legavre, 2011).

In economics and business management, the term "coopetition" is used to designate this phenomenon of cooperation among competitors (Bengtsson and Kock, 1999; Lado et al., 1997; Le Roy and Yami, 2007). This neologism was popularized by Nalebuff and Brandenburger (1997), and is the term most often used in the English-language academic literature to designate combinations of competition and cooperation. For instance, Larsen and Hutton (2012) and Ooi et al. (2015) use it to characterize the interactions between new and long-term residents in the western states of the U.S.; Steiner and Atterton (2015) rely on this notion to explore the role of private-sector enterprises in local development and resilience in Australia.

In sociological terms, the distribution of agricultural advisory services in a given area can be understood as a market in the sense of White (2001) – that is, as the product of a relational structure made up of formal and informal relationships among individual advisors who are constantly watching and comparing themselves to one another in their work (Steiner, 2016). Although speaking of an "advisory services market" may initially seem excessive, the justness of the expression can be better appreciated when we consider the trend among Chambers of Agriculture toward marketing services to farmers (Compagnone et al., 2008) and the cooperatives' practice of providing agronomic recommendations to farmers within the context of selling them agricultural inputs (Compagnone and Golé, 2011; Villemaine, 2017). This "market" denomination is consistent with the idea of the "agricultural knowledge market," used by some authors to signify how advisory services systems operate, with a diverse range of advisory services involved in a continuous exchange of knowledge (Klerkx and Leeuwis, 2008; Klerkx and Proctor, 2013; Leeuwis, 2000). Some investigators underline the hybridity of such markets and the fluidity of actors' activities within the agricultural knowledge market (Birmer et al., 2009; Eastwood et al., 2017; Klerkx et al., 2006; Klerkx and Leeuwis, 2008; Klerkx and Proctor, 2013). Following these authors, we seek to understand how the frontiers between private and public entities offering agricultural advice (the cooperatives and private companies vs. the Chambers of Agriculture) may be fluid.

In the theoretical framework proposed by Lazega, operators are viewed as actors who get along with one another – combining cooperation and competition – as a way of maintaining the structural viability of the market in which they operate; in other words, the market's capacity to persist over time at a given equilibrium between actors. By means of complex processes of coordination, i.e. intentional interactions with others to achieve a goal, operators develop negotiated, shifting equilibria between cooperation and competition. A neo-structuralist approach, based on the analysis of social networks, can illuminate this process by highlighting the social exchanges necessary to such coordination (Borgatti and Foster, 2003). Socio-economic relationships among actors are thus viewed "both as a site of circulation for heterogeneous resources and as a site of engagement" (Lazega, 2009, p. 539). The resources in question can be financial, human, informational, knowledge-based, etc. (Borgatti and Foster, 2003; Cross et al., 2001; Lazega and Pattison, 1999; Schaefer, 2011). The engagement at the heart of these socio-economic relationships takes the form of "a promise, an obligation, or a moral convention." It introduces "a sense of duration into the exchange of resources" and presupposes "a structure of social control and conflict resolution that makes this promise credible" (Lazega, 2009, p. 539).

Focusing more specifically on the connections maintained among agents working for different entities, we can seek to understand the

Download English Version:

<https://daneshyari.com/en/article/6545287>

Download Persian Version:

<https://daneshyari.com/article/6545287>

[Daneshyari.com](https://daneshyari.com)