Innovación y proximidad en dos sistemas agroalimentarios localizados de México[1]

Innovation and proximity in two localised agri food systems of Mexico

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Resumen

La innovación es un proceso socioeconómico, intersubjetivo y hermenéutico de generación de conocimientos, resultante de la acción social. En tal sentido, el objetivo del trabajo fue analizar el rol de las dinámicas de proximidad sobre la innovación productiva y socio-institucional en dos Sistemas Agroalimentarios Localizados de México: uno de producción de pan artesanal y otro de fabricación de quesos. En la metodología se propone un modelo analítico para los tipos de innovación en los SIAL y se examina el papel de las dimensiones de proximidad sobre la innovación utilizando la propuesta de Boschma (2005). Los resultados especificaron que las proximidades son formas de interacción y construcción de relaciones sociales, que condicionan la transferencia de conocimientos para la competitividad en los SIAL.

Palabras clave: innovación, proximidad, sistemas agroalimentarios localizados.

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Abstract

Innovation is a socio-economic, intersubjective and hermeneutic process of knowledge generation, resulting from social action. Accordingly, the objective of the study was to analyze the role of dynamics of proximity on the productive and social and institutional innovation in two Localized Agrifood Systems (SIAL) of Mexico: one artisan bread production and other of cheeses. In methodology is proposed an analytical model for the types of innovation in the SIAL and examined the role of proximity on innovation dimensions using the proposal of Boschma (2005). The results specified that the vicinity are forms of interaction and construction of social relations, affecting the transfer of knowledge for competitiveness in the SIAL.

Key words: innovation, proximity, localized agrifood systems

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Introduction

From a sociological perspective, innovation is assumed as an activity that occurs and play socially, i.e., argues cultural meanings are shared between individuals and institutions, and considered the relevance of the social structure, as well as socio-economic and productive interaction networks. In this understood, the cultural aspects (e.g., beliefs, values, interpretations) affect behaviour, confer advantages or disadvantages, but they also confer a set of symbolisms to the novelties (Fernández, 2012; Rodríguez, 2008).

In the same vein, the institutions impact on innovation to enhance or restrict the interaction between people, the level of knowledge transfer and interactive learning (Boschma, 2005). The social structure conditions then innovation through access to resources that confer power and possibilities of action to individuals or social groups. Meanwhile, interaction networks facilitate the flow of information and knowledge, at the time that generate innovation collective learning dynamics. The distinction is that knowledge sharing is more effective in dense networks, for example, the based on ties of kinship, friendship, or trust (Fernández, 2012).

In this sense, the dynamics of innovation occurs in a social context (physical or virtual) of individuals who interact and establish value agreements about an innovative knowledge, this presupposes a hermeneutical, and intersubjective character especially establishing a collective practice of social construction, where converge differing interpretations (Rodríguez, 2008).

In addition, knowledge makes sense to provide the means of transfer of innovations. However, it is necessary to consider two premises (Ayestarán, 2011): I) the nature of knowledge, because what happens in one place, with some values and an interrelation of specific subjectivities; II) the intrinsic complexity of priority not sequential or linear, but scientific - quotidian, tacit - encoded, theoretical - practical or public - private.

In this understood, the connotation of innovation as a process involves the collective sense of absorption of information, as well as the generation and dissemination of knowledge, whose effectiveness depends on social interaction, coupled with the establishment of communication pathways. The dynamics of innovation is reinforced by a sociocultural environment shared, in addition to routines, rules, and patterns of behavior, which constitute the scaffolding for the deliberate joint cooperation (Amin y Wilkinson, 1999). In these terms, the transfer of knowledge requires the absorption capacity to identify, interpret and exploit, when not explicit, the realization of innovation (Bravo-Ibarra y Herrera, 2009).

In accordance with the capacity for innovation, the relations of proximity (geographical, social, institutional, cognitive and territorial) between social actors settled the process of individual and collective interaction. The main impacts of the divergent and convergent duality of the proximity between actors are weighted with interpersonal learning transfer, coupled with the creation of knowledge for innovation. In this way, the economic-productive, socio-cultural and political-institutional appreciation of the proximity to innovation, lies in the ability to reduce uncertainty, problems of coordination of actors and improve communication.

On the other hand, innovations can have one connotation both economic - productive as socio - institutional. The first is oriented to the market and enable to maximize productive potential through a rational use of resources. The latter satisfy social needs, at the time that make it possible to create new social relationships, institutions and partnerships. Both have effects on competitiveness, to enhance the ability to efficiently use resources and add added value (Caravaca et al., 2005; Mendez, 2002; Santos and Gortari, 2011).

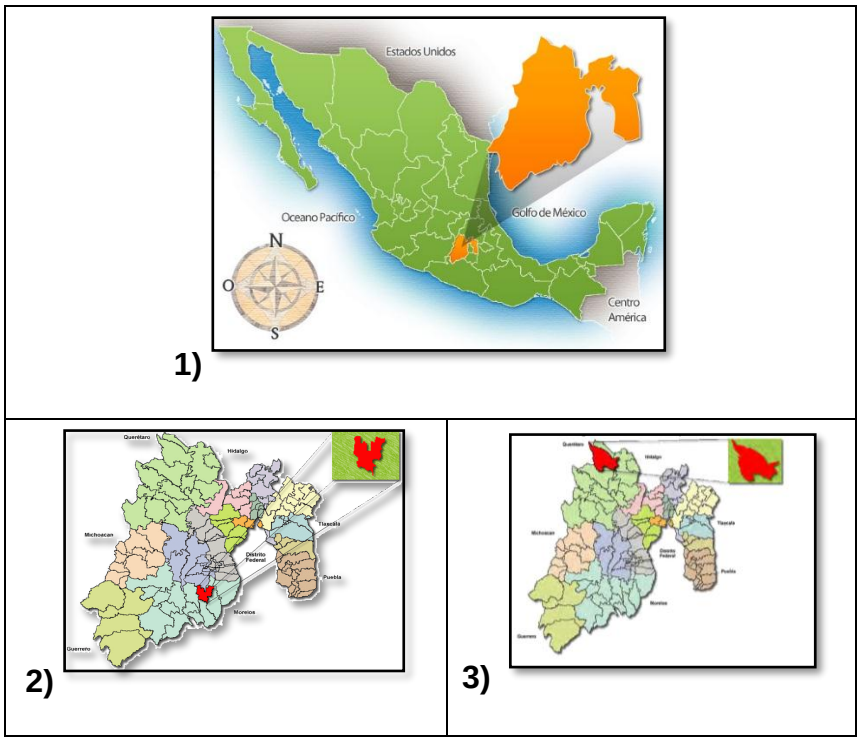
The dynamics of proximity and innovation processes syncretize in socio-productive systems. Regarding the Localized Agrifood Systems (SIAL) are models of spatial organization of agrifood activities consist concentrations of rural agro-industries (AIR), whose importance lies in linking individual elements (eg products, know-how, people, territory , resources) in an economic-productive, sociocultural and political-institutional complex and unstable system. In this understanding and hypothetically, it is assumed that the permanence of the SIAL in time and space is conditioned by the ability to realize innovations, subscribed to the dynamics of proximity.

Therefore, the fundamental part of the innovations and dynamics of proximity constitute the social actors of SIAL, through interaction productive chains, generating communication, everyday, social networks and learning processes, knowledge and innovation that guarantee system functionality. It is in this framework that the present work aims to contribute to the understanding of the dynamics of innovation in SIAL. Three questions are necessary: what kinds of innovations are presented in the SIAL ?, how proximity dimensions are present in the SIAL ?, what are the implications of the dimensions of proximity in the generation of innovations are at the SIAL ? The objective was to determine the relationship between innovations and dimensions of two SIAL proximity of Mexico.

Methodology

The study was limited to analysis of two Localized Agrifood Systems of Mexico, the production of cheeses of the municipality of Aculco (SIAL-Aculco) and production of artisanal bread the municipality of Tenancingo (SIAL-SMT), both located in the State of Mexico (figure 1). To fulfill the objectives, methodology was divided into three stages. The first considered fieldwork through semi-structured interviews with key players in each SIAL (eg agro-industrial producers, input suppliers, traders, producers' association and support organizations), with the aim of identifying (economic, social relationships of friendship, kinship, trust, cooperation or competition), networks of interaction and knowledge transfer. This allowed the characterization of qualitative proximity dimensions.

Figure 1. Ubication del SIAL-Aculco y SIAL-SMT

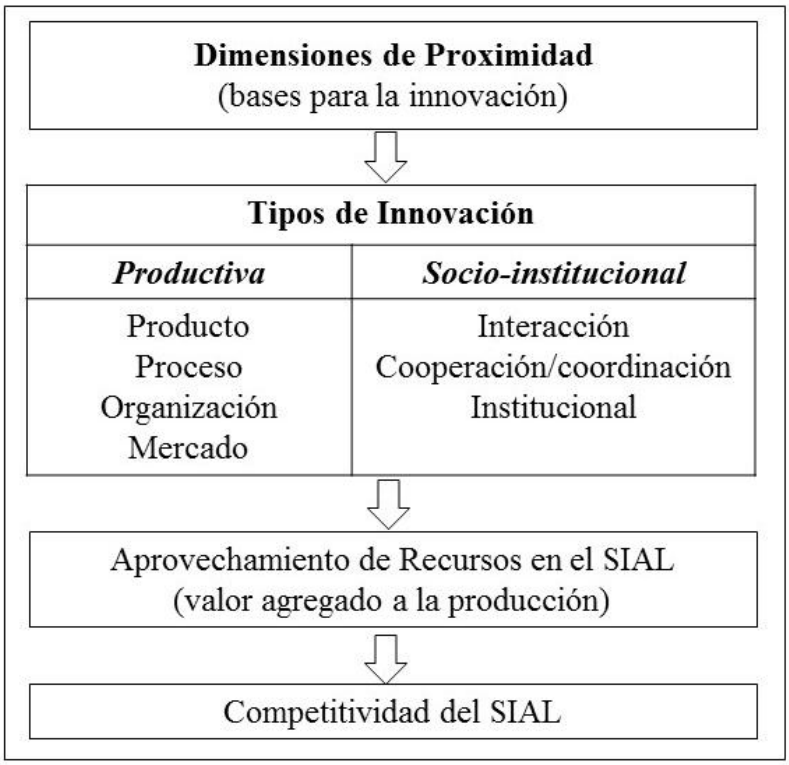


Source: INEGI, 2015. 1) Estado de México a nivel nacional; 2) Municipio de Tenancingo a nivel estatal; 3) Municipio de Aculco a nivel estatal.

Additionally, in the case SIAL-SMT questionnaires were applied in 36 AIR (30%). The questionnaire was divided into four sections: 1) personal data of the producer of bread, 2) technical-productive characteristics of the AIR, 3) marketing, 4) horizontal, vertical and lateral relations. In the case SIAL-Aculco a questionnaire that was applied in 34 agribusinesses (92% of the total) was designed; It consisted of five sections: personal data cheese producer, 2) profile owner, 3) productive technical characteristics, 4) relationships back and forth and 5) collective action. Data was analyzed with descriptive statistics.

In the second stage, the obtained data were analyzed from the proposed in Figure 2. In this regard model is necessary to balance two considerations: a) productive innovation and socio-institutional promotes the competitiveness of SIAL, via the rational use and resource efficient for increased productivity; b) essentially every innovation brings economic benefits, but also generates social, cultural or environmental externalities (Ayestarán, 2011; Alburquerque, 2008).

Figure 2. Proximity and innovation in the use of resources SIAL



Source: elaboración propia.

Innovations in the productive sector impact on four factors: mean changes in product characteristics or uses of agro-industrial products; in process are changes in the production process; in organization are modifications in the form of internal administration of the AIR; and market are changes in promotion and marketing aspects.

In the same vein, the socio-institutional innovations concern the generation of new ideas for organizing interpersonal activities. They can be differentiated into three types: a) those involving new relations of the AIR; b) the processes of cooperation / coordination between AIR involving structural and functional collective actions; c) the creation of new types of institutions that help stabilize the interaction between actors.

In the third stage methodological implications of the dynamics of proximity on the innovations of SIAL cases were analyzed. For the previous six dimensions of proximity, the central element that defines them and the main implication or effect on innovation (Table 1) were considered. Cognitive proximity is a means of interaction for social actors who share a common base of knowledge and experience. It is relevant for the absorption capacity to identify, interpret, operate and transfer knowledge (Boschma, 2005). The organizational proximity is defined as the extent to

which the interactions among a set of actors are shared in an array of organization. In terms of innovation, proximity generates such an interaction network that acts as a vehicle for the transfer and exchange of knowledge and as promoter of interactive learning.

The institutional proximity includes formal (laws or regulations) and informal institutions (habits, cultural values, norms, established practices). Its importance for innovation is that it reduces the uncertainty of trade, reduces transaction costs, provide stable conditions for the transfer of knowledge, promotes coordination of actors and interactive learning (Boschma, 2005).

Table 1. Dimensions of proximity and its relationship to innovation.

Dimensiones de proximidad	Elemento clave	Implicaciones en la innovación
Cognitiva	Conocimientos que son compartidos	Permite entender y aprovechar nuevos conocimientos.
Organizacional	Organización	Promueve la interacción constante y el intercambio de conocimientos.
Institucional	Confianza (basada en instituciones comunes)	Reduce incertidumbre y costos de transacción, promoviendo interacción y el aprendizaje interactivo.
Social	Confianza (basada en parentesco o amistad)	Estimula la comunicación y derrames de conocimiento “boca a boca”.
Geográfica	Distancia geográfica	Genera externalidades espaciales.
Territorial	Territorialidad	Potencia procesos de coordinación-cooperación, facilitando intercambio de conocimientos y generación de innovaciones.

Source: elaboración propia, basado en Boschma (2005).

Social proximity is considered in terms of attachment, ie, the actors establish relationships of trust, friendship, relationship or experience. This type of proximity facilitates the exchange of tacit knowledge (know-how), by nature, difficult to formally disseminate (Mattes, 2012; Boschma, 2005).

Geographical proximity refers to spatial or physical distance separating two production units, both in absolute and relative sense. Its main advantage in terms of innovation is linked to the generation of externalities of knowledge and experiences of innovation that can be easily absorbed almost no cost. In addition, "short" distances favor direct contacts between actors that facilitate the exchange of tacit knowledge (Torre and Rallet, 2005; Boschma, 2005). The territorial proximity is understood in terms of shared territory. The territory is conceptualized not only as a portion of land bounded with complexity biophysics (topography, environmental conditions, biodiversity), but as socially constructed space (Sosa, 2012, p. 7). In this understanding, the actors are close territorially when sharing identity and belonging, expressed in collective efforts to manage the territory.

Results and discussion

SIAL cheese production (SIAL-Aculco)

SIAL cheese production is located in the municipality of Aculco northwest of the State of Mexico. Incipientemente cheese production began in the 1960s linked to livestock farming in the region, however had a significant growth in the eighties and nineties. Currently, the production of cheeses derived from a set of 37 AIR involved in the process, distributed in four communities. The AIR establish relations back to milk producers for the supply of raw materials, supplies, equipment and machinery, forward with buyers for the marketing of dairy products and sideways with other agribusinesses for exchanges of information and / loans of equipment and materials. In 50.0% of AIR, responsibility and decision-making lies with the producer of cheese, which is in charge of the process of making dairy products, marketing, input supply, equipment and machinery.

The cheese is simple but laborious. Milk is filtered, transferred to heating and curd vats for subsequent cutting into blocks. The curd is brought to the workshops where the draining is done, salted and molded. Estimated weekly cheese production is 43,209 kilograms and includes six types: oaxaca, ground, manchego, panela, provolone and backpack. Marketing is retail and wholesale centers of consumption in local-regional given the particular characteristics of cheeses with little shelf life, reduced volume and individual sale. Mainly they sold in the city of Toluca (Mexico state capital), in Mexico City and the states of Querétaro and Hidalgo.

The SIAL bread production (SIAL-SMT)

SIAL bread production is located in the San Miguel Tecomatlán community, municipality of Tenancingo, south of the State of Mexico. It is estimated that making bread is made from the mid-nineteenth century, a time when Tenancingo occupied the top wheat producing state of Mexico (Castro, 2003). After the Mexican Revolution (1910-1920), the remarkable wheat agriculture in the region gradually disappeared, however agribusiness bread continued growing, thanks to the bread had a rapid consumer acceptance. At present there are 117 AIR (INEGI, 2012).

The varieties of bread products made from ingredients derived and similar procedures: a mixture of wheat flour, water, shortening, yeast and sugar; It is passing through a process of kneading, fermented, divided, heavy, boleado and formed; rest, cutting and cooking. There are six main varieties: Cocoles, cakes, pan de muerto, hurry, mestizo and wagon. Among the peculiarities of bread they can mention the absence of chemicals (preservatives, colorings, flavorings) and a long shelf life. Due to variations in the production of bread between different AIR, the exact amount of bread made in SIAL is not known, however, a weekly consumption of 21,500 kg of wheat flour is estimated. Marketing bread is done through two channels: direct sale to consumers in street markets[2] (72 %) and sales intermediary (19%). Flea markets with greater presence of bakers are in neighboring municipalities: Tenango, Xalatlaco, Santiago Tianguistenco, Ocuilan, Toluca and Metepec.

Productive and socio-institutional innovations in SIAL-Aculco and SIAL-SMT

Competitiveness in SIAL studied is marked by the continuous increase of competition between AIR sharing the same reference space (territory), immersed in the phenomenon of co-opetition. The challenge is greater, the need for expanding market access or requiring this type of production systems where the AIR form the basis of the production chain. Production complexity increases and profitability is a constant search, basic marketing systems used, which articulate the supply of raw materials and products business transaction with retailers or wholesalers.

The introduction of innovations in SIAL study seeks to confer added value to agricultural production and enable long-term profitability. The innovations are based on the use of intangible resources of knowledge, skills and creativity, which over time could help to promote increased

[2] Mercado pequeño, principalmente el que se instala de manera periódica en la calle.

productivity on a sustainable basis. Innovation enables the SIAL identify opportunities and meet the challenges of the environment, with a base quickly and effectively adaptability (Albuquerque, 2008; Barroso and Flores, 2006; Caravaca et al., 2005).

However, the social dissemination of innovation in cultural foresight required in the first instance the creation of a dynamic integration of actors rational structure, especially innovations here assumed are considered factors of transformation in the organizational and institutional spheres, driving besides economic change and social welfare. Specifically, these changes are only possible to express in learning environments and knowledge among actors SIAL, so that a local innovative environment is formed; as dimensioned Rodriguez (2008, p. 82); subscribed to socio-productive networks, where conditions for the emergence of organizational, structured and functional patterns that ensure progress of innovation arise. So that innovations in the SIAL outlined a continuing need to remain current market (Tables 2 and 3).

Product innovations focus on diversification, it is a constant search to obtain consumer preference. They are enhancing innovations, where AIR are gradually adapting the types of products according to their acceptance or rejection on the market. In addition, diversification allows AIR offer a basket of goods that meets the multiple needs of the consumer.

In the process, the distinction was oriented to the search for greater efficiency of the production system and increasing the production scale. Generally they considered radical type because they are modifications that have substantially altered the production process and product characteristics. In both cases, the introduction of new machinery and equipment has reduced labor costs and increase production levels, however it has also modified the organoleptic characteristics of the products.

In organization, in both SIAL agroindustrial producers have acquired new administrative skills for calculating production costs, market survey, determining efficiency of the production process, raw material performance, developing production plans and sales forecasts. In the same vein, the presence of producers with some degree of academic preparation is an element that allows the creation and reconfiguration of knowledge. The distinction administrator of the production process requires the constant search for links with the different stakeholders, for the sake of knowledge transfer necessary for the agro business. Meanwhile, the constant reconfiguration of knowledge acquired is related to the adaptation of materials, equipment and techniques, originally designed for other production processes; also it facilitates the combination of

traditional production processes with latest technologies and adapt their products to new consumer demands.

Table 2. Productive Innovation SIAL-Aculco y SMT-SIAL

	SIAL-Aculco	**SIAL-SMT**
Producto	Diversificación de tipos de quesos. Introducción de productos complementarios: crema, requesón, nata, dulces de leche, gorditas, waffles y postres de leche. Modificaciones en la presentación final del producto (de circular a rectangular).	Diversificación de tipos de pan, sabores (más de 10) y tamaños. Cambios en la presentación final del producto (número de piezas de pan por bolsa).
Proceso	Introducción de maquinaria (molinos manuales y eléctricos) en sustitución del molido en metate.[3] Uso de leche en polvo cuando hay escasez en el abasto de leche. Introducción de descremadora para obtener crema, un derivado lácteo muy solicitado en la zona	Introducción de maquinaria (amasadora, refinadora, cortadora) en sustitución del trabajo manual. Introducción de gas como combustible para hornos en sustitución del uso de leña
Organización	Adquisición de nuevas habilidades administrativas. Uso de teléfono y e-mail para contactar clientes y proveedores. Empleo de computadora.	Adquisición de nuevas habilidades administrativas Uso de teléfono para contactar clientes y proveedores.
Mercado	Establecimiento de tiendas de venta directa. Venta en supermercados regionales y centrales de abasto. Uso de etiquetas	Uso de trasporte propio para comercialización en sustitución de trasporte rentado. Venta en supermercados regionales y centrales de abasto. Uso de etiquetas.

Source: elaboración propia.

[3] Piedra sobre la cual se muelen manualmente con el metlapil (pieza cilíndrica, también de piedra) el maíz y otros granos. En España se empleaba para hacer el chocolate a brazo.

Table 3. Innovación socio-institucional en SIAL-Aculco y SMT-SIAL

	SIAL-Aculco	**SIAL-SMT**
Interacción	Vínculos con actores gubernamentales (SEDAGRO[4], ISEM[5], Gobierno municipal). Vínculo con Universidades (UAEMéx[6], IPN[7]).	Vínculos con actores gubernamentales (SEDAGRO, STPS[8], Gobierno municipal). Vínculo con UAEMéx Vínculo con Organismos Internacionales (IICA[9])
Cooperación/coordinación	Creación de Unión de Productores Lácteos de Aculco (UPLA). Participación en ferias culturales del municipio. Logro de financiamientos y capacitaciones.	Creación de Asociación de Panaderos Artesanales de Tecomatlán (APAT). Compra conjunta de harina de trigo. Ventas conjuntas. Logro de financiamientos y capacitaciones.
Institucional	Adopción de registro sanitario	Ventas a través de contrato escrito. Compra de insumos a crédito.

Source: elaboración propia.

In market, opening new marketing channels are constantly seeking. In the case of SIAL-SMT have own transport allows AIR market their products more easily, find new retail locations, at different times and reducing freight costs, avoiding dependence on intermediaries. SIAL-Aculco, closeness to Mexico City (136 km) and the State of Querétaro (91 km) has encouraged tourism weekends in this area have increased in the center of the town of outlet shopping : 20.0% of AIR have a specific facility for the supply of dairy products and 20.0% have grocery store where they sell part of the production.

[4] Secretaría de Desarrollo Agropecuario del Estado de México (SEDAGRO)
[5] Instituto de Salud del Estado de México (ISEM)
[6] Universidad Autónoma del Estado de México (UAEMÉX)
[7] Instituto Politécnico Nacional (IPN)
[8] Secretaría del Trabajo del Estado de México (STPS)
[9] Instituto Interamericano de Cooperación para la Agricultura (IICA)

In the socio-institutional innovations, establish links AIR interaction with universities, government institutions or international organizations that provide access to finance, training, technology transfer and technical assistance. This involves transfer of knowledge, ranging from how to approach to ask for a subsidy, improved capabilities for managing production units to new technologies to improve production of cheese and bread. These are processes that allow assimilation, integration and utilization of scientific and technological knowledge.

In cooperation / coordination, collective action refers to structural organizational processes of the actors in socio-productive associations as ways to capitalize and respond to the various problems of the environment. SIAL-Aculco LAUP was established in 2003 with 37 partners in order to establish a pasteurizing plant, currently works with 20 members. SMT-SIAL, the APAT was established in 2008, had important achievements during the first two years of operation. Currently presents an intermittent triggered by problems between partners and debt with a supplier of flour.

Regarding institutional innovations have been introduced new rules and regulations governing economic activity as well as the interaction between actors. SIAL-Aculco result in the adoption of health records and operating permits, 61.8% of AIR has them, but generally involves an additional financial outlay for all producers and virtually no benefit. SIAL-SMT when a baker did not have the financial resources to purchase inputs, the supplier's granted under a verbal agreement, however due to the constant delays in payments some providers have introduced the use of promissory notes with an payment time limit of eight days. In addition, written contracts of sale appear as another institutional innovation, although its use is limited (1 % de las AIR lo emplean).

The dynamics of proximity and its link to innovation in SIAL

Innovation processes are related to the different ways of using existing knowledge as well as the creation of new elements. The interaction between actors unleashes creativity and allows the emergence of new ideas that could not arise in isolation. (Social, economic, cultural, productive, institutional) heterogeneity is critical in any innovation process and in the context of the SIAL is a constant. However, interaction, learning and knowledge transfer between socioeconomic actors are based on dynamics of proximity (geographical, organized, institutional, social, cognitive,

territorial), as well as the convergence of similarities and shared understandings, ie, in relative consensus (vicinity) with respect to shared characteristics. In this sense, Table 4 summarizes the different forms (dimensions) SIAL proximity in both study.

In both SIAL analyzed, cognitive proximity is related to the construction of a traditional know-how longstanding generational way transmitted or social relations of friendship and trade between agribusiness producers. It is tacit knowledge of endogenous origin, which have evolved from a recursive process of trial and error. The know-how is rooted in the territory. This form of proximity is basically concrete by horizontal interaction on the basis of mutual understanding, where understanding between producers facilitates interaction and exchange of knowledge. Being tacit knowledge that is shared, innovations are generated in informal social relations and daily work, and are thus enhancing innovations aimed at product (diversification) or process (technological changes).

Social proximity is sponsored by social relations of kinship and friendship, but not discarded with virtually established commercial purposes. Social relations are based on trust and reciprocity attitudes. In the SIAL, production duties are practically household where the know-how of the food activity is transmitted from parents to children. Social proximity between producers facilitates exchange and cooperation activities, are loans of equipment, materials or raw materials, information exchanges and joint purchases. These agreements operate tacitly and implicitly and are based on the willingness of the actors to communicate.

The institutional proximity involves sharing rules, routines and social practices related to food production, with interactions grounded in values of trust and reciprocity. In relations of producers with suppliers and customers predominate values of trust, that is, is economic relations of speech, without the intermediation of contracts, and in some cases loans are granted to cover part of the payment for raw materials and finished product.

Table 4. Dimensions and characteristics of proximity SIAL-Aculco y SIAL-SMT

Proximidad	Características
Cognitiva	Saber-hacer arraigado en el territorio y transmitido generacionalmente (50 años en SIAL-Aculco y 100 años en SIAL-SMT).
Organizacional	Sistema productivo basado en una red de relaciones entre productores agroindustriales, proveedores de materias primas, intermediarios, consumidores y organismos de apoyo.
Institucional	Actores que comparten rutinas ligadas a la actividad productiva (sitios de venta y compra; días y horarios de producción; mejores épocas de venta). Comparten tradiciones (fiesta patronales; en SIAL-SMT existe la danza de los panaderos). Las relaciones entre productores agroindustriales y proveedores están definidas por convenios de palabra e implican amistad, solidaridad y reciprocidad.
Social	En los dos SIAL la actividad agroindustrial es realizada por el padre de familia, su esposa e hijos. En algunos casos hay participación de hermanos y otros familiares.
Geográfica	En SIAL-Aculco existen 37 AIR en 492.1 km^2 distribuidas en cuatro comunidades. En SIAL-SMT la concentración de AIR es alta 117 AIR en un espacio de 0.8 km^2
Territorial	Actores que comparten identidad y sentimientos de pertenencia al territorio.

Source: elaboración propia.

The organizational proximity refers to the organization of the productive system. This type of proximity wields interdependent socioeconomic and productive relationships. The set of actors in each SIAL form a structured unit, with links that form a network along which information and knowledge, and learning in the production and commerce. Networks represent interactions

through social action and Socialization of knowledge, so that the baggage of tacit and codified knowledge is available to be useful to all stakeholders in the SIAL.

Geographical proximity in the SIAL is conditioned by the type of productive activity, inserted into the scaffold "localized" (which term means process, situation and location) and entered in dynamic peasant production. The geographical conditioning refers to the location of specific natural resources and character of spatial concentration of socio-economic actors. This dimension of proximity invalidates rooted relationships, physical proximity of actors and external economies that qualify labor, facilitate the presence of specialized suppliers and appropriation of knowledge by direct observation.

The territorial proximity is a dimension that is characterized by the specificity of the territory of each SIAL, but ponders the articulation of different activities taking place in discontinuous spaces (feedstock production, processing and marketing). In an increasingly defined by the location-relocation process agrifood production activities, land assembly acts as a factor, ie, as an element that has qualities to organize collective strategies. The territorial proximity implies the ability to formulate and coordinate projects via collective integration of both public and private actors. The quality of the territory as assembler notes with solidarity, feelings of belonging and common values that structure and give meaning to social networks.

Since the notion of innovation, the territories are not neutral in the process of creation; place environment and provide conditions for creative thinking in the form of incitement, emulation and imitation logical that favor individual and collective learning (Boisier, 2010, p. 32). Elucidates the territory with social practices that produced by generations, thus linking history with time and space given context; also structure social relations with facts, experienced crises and ruptures. In sum, the territorial proximity condenses the different forms of proximity, as is caused by the action and practices of social and institutional agents.

Conclusión

Innovation in SIAL-Aculco and SIAL-SMT must be understood as a process that materializes by the dynamics of proximity, as forms of interaction and social construction of social relations. Productive innovation led to changes in product, process, market and organization; the socio-institutional innovation solves interaction and cooperation of social actors and institutional requirements governing the behavior of social relationship. Innovation contributes to the

competitiveness of SIAL, via the use and mobilization of resources to confer long-term added value. Beyond contribute to its permanence in time and space, empower trade, promote learning and productive as both economic and sociocultural territorial anchorage.

Innovation processes are based on interactions of social actors in socio-productive networks that facilitate the exchange and transfer of knowledge. Thus, the social proximity invalidates an agroindustrial activity of family type, based on ties of kinship and friendship. Cognitive proximity is based on know-how rooted in the SIAL, transmitted generationally and which forms the basis of mutual understanding. The institutional proximity is shown on relationships of trust and reciprocity that provide certainty and conditions for sharing knowledge. The organizational proximity arises in the horizontal, vertical and transverse interaction of actors in the SIAL, promoting knowledge flows. Geographical proximity permeates innovation through knowledge spillovers. And the territorial proximity condensed, articulates and superimposes all dimensions of proximity, which results in innovations of cooperation / coordination and institutional.

This article contributes to the understanding of the social dynamics in SIAL, however, it is important that a high degree of proximity between actors can also act as an inhibitor of the innovation process, due to a loss of resources of novelty and / or excessive bureaucracy. In this sense, future research should address the impact of high proximity in generating innovations SIAL and possible solutions.

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