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FAMILY AGRO-INDUSTRY CLUSTERS FROM THE SOCIAL INNOVATION PERSPECTIVE¹

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ABSTRACT

Objective: To explore and understand the Family Agro-Industry Clusters from the social innovation perspective.

Originality/gap/relevance/implications: Social innovation allows us to understand how global issues can be resolved based on local elements. The originality of this study is in the analysis of the cluster as a social innovation, highlighting its formation impacts decisively in the economic and social development of the region in which they operate.

Main methodological aspects: This study had emphasis on semi-structured interviews with governance members from the investigated cluster, as well as on the analysis of the governance meeting minutes since the emergence of the clusters. The analysis of the collected content was performed with NVivo 11 software.

Summary of key findings: Social innovation was analyzed based on the viewpoint of the process, network formation, planning, governance, and results. These categories from the theoretical framework enabled the Family Agro-Industry cluster from social innovation to be explained.

Key considerations/conclusions: Results indicate that the clusters of Family Agro-Industry analyzed can be considered a social innovation because they have the necessary elements for its characterization, emphasizing the governance as a central construct and culture of coalition with actors from the public, private and third sectors in finding solutions for social needs.

KEYWORDS

Innovation. Social. Local clusters. Agro-industry. Family.

1 INTRODUCTION

Social innovation can be seen as the result of a collective learning process that offers new solutions to satisfy social demands and needs. It consists of a network with the participation of actors from the public, private and third sectors with complementary objectives, building social cohesion, changing social relations, and proposing new cultural orientations (Bouchard, 2012).

Despite social innovation being discussed for over a decade, there is a lack of theoretical and empirical studies on this topic (Maclean, Harvey, & Gordon, 2013; Bhatt & Altinay, 2013). Literature is presented in a fragmented manner, disconnected and diluted among different areas (Cajaiba-Santana, 2014), such as urban and regional development (Klein, Tremblay, & Bussi eres, 2010), management (Wagner, 2010), social economy (Bouchard, 2012), and social entrepreneurship (Tapsell & Woods, 2010; Sonne, 2012). In Brazil, social innovation is a recent topic in academic research, as well as in terms of public policy (Bignetti, 2011), which results in research opportunities that enable the development of knowledge from social innovation practices and the understanding of how global problems can be resolved from local elements.

Innovation has been extensively studied since 1912 when Joseph Schumpeter addressed the issue emphasizing monopoly profits and creative destruction (Schumpeter, 1934; Godin, 2008). This line of thought has driven practically all studies since the twentieth century. Innovation studies have also been focusing on technological progress improvement, and management has recently assumed a new facet by shifting from the business and technology segment to the social one. As a result, the interdisciplinary characteristic and multiform scope in cultural, political, economic, psychological, social and technological spheres have been strengthened (Baregheh, Rowley, & Sambrook, 2009; Tidd & Bessant, 2013; Drucker, 1985; Cloutier, 2003; Murray, Caulier-Grice, & Mulgan, 2010).

Based on this context, this study focuses on a particular type of cluster known as Local Productive Arrangement (LPA), which has great economic and social importance since it greatly contributes to the maintenance of rural families in their properties: the Family Agro-Industry Cluster of Rio Grande do Sul, Brazil. Thus, the main purpose of this study is to explore and understand the Family Agro-Industry Cluster from the social innovation perspective, since the analysis of the relationship between these themes are uncommon in the scientific community and it may enhance research contributions.

Clusters work on a productive activity in a given territory and cover a force field, a web or network of social relationships. Their constructive dimension is economic by definition, although not restricted to it (B uttenbender, 2010).

Besides being an alternative for business and other local and regional actors, the formation of a cluster is an important factor for local economic and social development and the region in which it is inserted (Sampaio & Alves, 2013).

This study on social innovation is structured as follows: Section 2 brings the literature review on social innovation; Section 3 shows the research methods; Section 4 presents data analysis and discussion divided into four subsections according to the categories of analysis; and Section 5 describes the study findings.

2 SOCIAL INNOVATION CONTEXT

During the twentieth century, innovation became a recurring part of discourse, particularly the type of innovation related to technology, in which we can highlight Schumpeter (1934). This period witnessed a technological advance never seen before, with innumerable benefits, but at a social and environmental cost of the same rate (Dowbor, 2009).

From the second half of the twentieth century, social innovation began receiving increased attention as a political reaction to the hegemonic discourse of technological innovation (Godin, 2012). Understanding that another world is necessary and possible, numerous initiatives have arisen, some including studies on social innovations as innovative solutions for human needs (Mulgan, 2006) and alternatives to solve social and environmental problems (Maurer & Silva, 2014). These ideas are aligned with the concept of Dawson and Daniel (2010, p. 16) as “a collective process of generation, selection and execution of ideas for people who participate collaboratively to meet social challenges”.

To understand how social innovation is being addressed, a survey of publications using the terms ‘innovation’ and ‘social’ was conducted. The investigation involved international scientific production published in the ISI Web of Knowledge database (Web of Science). Altogether, 1,266 works of thematic areas and heterogeneous nature were found. From this initial sample, research was refined in the search for articles in the area of Business Economics, reaching a sample of 217 items and considering the year 2014 with no initial temporal cut as a temporal filter. Upon reading the abstracts, 174 articles were excluded since they addressed Social Capital and Innovation and Social Innovation and Networks. The final sample consisted of 43 papers. In order to complement the survey of scientific production of social innovation, a survey was made using Google Scholar, in which it was possible to identify other relevant works to contextualize this issue that are covered in this section.

The social innovation trajectory occurred mostly in the 1970s with publications by Campbell (1970) and Taylor (1970), followed by Poor (1971), Brewer

(1973) and Huber (1979). Scientific production still followed timidly in the 1980s; however, in 1986, the Centre de Recherche sur les Innovations Sociales (Crises) was founded. This center was an interuniversity and multidisciplinary organization that brought together approximately sixty researchers from eight Canadian institutions. Subsequently, scientific literature on the subject has been intensified since 2000, indicating the establishment of a research field.

The analyzed studies reveal the emergence of the issue and lead to the need for further research as the advent of social innovation models of analysis begin to be developed. Notable examples are the dimensions of social innovation analysis from Cloutier (2003), the Tardif and Harrisson model (2005), the Social Innovation Cycle from Mulgan (2006), the model of Social Innovation Process by Rolin and Vincent (2007), the theory of Social Innovation Manufacturing – TSI theory from Haxeltine, Avelino, Wittmayer, Kemp, Weaver, Backhaus, & O’riordan (2013), Social Transformation Process discussed by Buckland and Murillo (2013), and the Process of Social Innovation from Cunha and Benneworth (2013).

These studies and analysis models reinforce the social innovation concept as an intervention that is born within the society, composed of many different social actors from private, public or third sectors. These actors join (social cohesion/collective action) to find solutions for problems that affect the society they live in. This search for solutions changes social relationships and empowers individuals, transforming the environment (company, territory, town, district, village) into a sustainable place and consequently enabling people to obtain better life quality and well-being. This social innovation should then be replicated in scale in other environments and be constituted as a social value.

Social innovation can be seen from two points of view: either as a process or as product or service. As a process, focus is given on the form, steps, actors, context, resilience need, social capital, and empowerment. On the other hand, as a product or service the focus is on the results, transformations, objective changes, and influence. Although both are forms of analysis, one is the consequence of the other, because there is no product or service without any previous process.

As a process, there seems to be a consensus on the social innovation cycle proposed by Mulgan (2006), who suggests six stages reinforced with feedback, interaction and overlap, which are not always presented in sequence. In nearly every social innovation process described in the literature, the inception takes place in the problem, crisis, necessity or even in the identification of opportunities of doing something different (Murray *et al.*, 2010). The remaining steps include the planning process with the diagnosis, design, actor involvement (networks/initiatives), pre-testing, implementation, monitoring (governance/monitoring), feedback, distortion correction, evaluation, dissemination, and scalability. Chambon, David and Devevey (1982) emphasize that the process requires

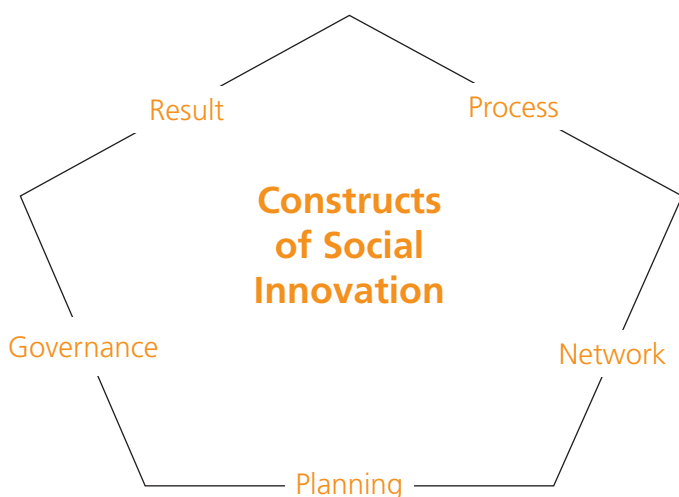
participation and empowerment since the conception until the implementation of social innovation.

The social innovation process is the necessary systemic change or transformation that occurs in the environment and in the people where the process takes place. Neglecting change and simple regulation of the process are highlighted as a theological error (Cajaiba-Santana, 2014). Not all social innovations are substantive enough to cause major changes, hence social innovations are categorized as base, wide or systemic in a continuum from tangible to intangible (Cloutier, 2003; Haxeltine *et al.*, 2013).

The analysis models identified in the literature enable an in-depth reflection of the social innovation topic. The first thing to highlight is the relative harmony between models, despite the short time that studies on social innovation have been under development. In this context, it is possible to identify some guiding constructs from social innovation, which can be seen in Figure 1.

FIGURE 1

THE CONSTRUCTS OF SOCIAL INNOVATION



Source: Elaborated by the authors.

Figure 1 presents the social innovation essence. The *process* involves all stages of a social innovation (Mulgan, 2006; Murray *et al.*, 2010), such as motivations, which are represented by problems or crises, and initiatives that anticipate possible social adversities. The entire process in a social innovation is private, there is no determinism of beginning or rigid subsequent steps (Cunha & Benneworth, 2013), and there are different paths to continue the search for social

innovations that provide change, transformation and impact on society (Cloutier, 2003; Tardif & Harrisson, 2005).

A pivotal point in social innovation studies is pursuing the coalition of social actors, people, and private (companies), public (government), public-private (PPP) or third sector (NGOs) organizations. These actors make up the *network* that is the driving force for social innovation development (Cloutier, 2003; Rollin & Vincent, 2007).

Projects and proposals are part of the brainstorming stage and consequent *planning*, which aims to define objectives, goals, priorities and prototypes to be analyzed by different actors, emphasizing maximum participation as this may encourage people to be more committed in achieving the goals (Chambon *et al.*, 1982; Cloutier, 2003; Rollin & Vincent, 2007; Murray *et al.*, 2010).

It is also important to identify the leaders of the process as they can assume their coordination and articulation roles of *governance* (Tardif & Harrisson, 2005; Haxeltine *et al.*, 2013; Avelino *et al.*, 2014; Maurer & Silva, 2014). Governance is the coordination and regulation process of set of activities of collective interest in a given environment in order to reach agreements that make the interests of the constituent organizations possible (Sousa *et al.*, 2015).

The *result* is a construct that provides to integrate elements related with social innovation sustainability. It is comprised of the effectiveness of economic, environmental and social spheres and the resulting technical and social innovations. These results are amenable to be scaled and replicable, focusing on the main purpose, which is the change and transformation of society (Tardif & Harrisson, 2005; Mulgan, 2006; Murray *et al.*, 2010; Buckland & Murillo, 2013; Haxeltine *et al.*, 2013; Avelino *et al.*, 2014). The five constructs (process, network, planning, governance, and results) are considered pivotal to analyze social innovation, therefore, enabling the study of a case that is presented in the following sections.

3 METHODS

In order to explain and understand Family Agro-Industry Clusters from the social innovation perspective, the following approaches were used: 1. literature review focused on social innovation; 2. interviews with governance members of the cluster from Agroindústria Familiar e Diversidade do Médio Alto Uruguai e Rio da Várzea located in Northern State of Rio Grande do Sul, Brazil; and 3. the study of all minutes of governance meetings since the foundation of the cluster. In order to implement the data analysis from the interviews and documents, a qualitative method of content analysis was used, which, according to Bardin

(2009, p. 40), “is a set of techniques used to analyze communication that uses systematic procedures and objective content descriptions of the message”.

The central premise of this study consists in the five constructs of social innovation that are present in the cluster, which influence in changing society. The chosen cluster is one of the five clusters in the Family Agro-Industry of the State of Rio Grande do Sul, which is considered a reference state and located in a region with a historical predominance of small subsistence farms colonized especially by European immigrants (Italians, Germans, and Polish, among others). Notably, this region has agricultural production and processing as its main source of income. The chosen interviewees were part of the cluster governance and responsible for defining strategies and management. The accessibility was also considered for choosing the cluster and governance members.

In order to validate the interview guide, a pre-test was used with a group of researchers who develop studies similar to the study in question. Minor adjustments were carried out to improve guidance to the respondents. Seven semi-structured interviews were conducted with governance members whilst attempting to cover all representative segments as described in Chart 1. The interviews were carried out face-to-face and audio-recorded between September and October 2015, and subsequently transcribed.

CHART 1

RESPONDENT PROFILES

INTERVIEWED CODE	FORMATION	OPERATING TIME AT THE CLUSTER	SECTOR	OPERATING TIME IN THE SECTOR	PROFESSION	GENDER
E1	Business	2 years	Private (Association)	2 years	Assistant technician	Male
E2	Business and MBA	8 years	Public and Private (Association)	3 years	Coordination	Female
E3	Business and Master's	4 years	Public (Education)	5 years	Direction	Male
E4	Agronomy and Master's	4 years	Private (Education)	11 years	Coordination	Male

(continue)

CHART I (CONCLUSION)

RESPONDENT PROFILES

INTER-VIEWED CODE	FORMATION	OPERATING TIME AT THE CLUSTER	SECTOR	OPERATING TIME IN THE SECTOR	PROFESSION	GENDER
E5	Business and MBA	3 years	Private (Association)	2 years	Direction	Male
E6	High School	2 years	Private (Cooperative)	8 years	President	Male
E7	Accounting	3 years	Private (Cooperative)	33 years	President	Male

Source: Elaborated by the authors.

Interviews were transcribed and coded using NVivo 11. This software is designed to help users organize and analyze non-numerical or unstructured data making it possible to classify, sort and organize information; examine relationships between the data; and combine analysis with linking, research and modeling. As noted by Kaefer, Juliet and Sinha (2015), NVivo is an important tool for building arguments derived from primary literature data, allowing a number of features that would be manually impossible or would require excessive amount of time.

Table 1 shows the number of references by sources (interviewees and minutes from cluster governance meetings) for the categories of analysis that were previously defined as the theoretical framework. References correspond to the text from the analysis of sources and its connection with the category (node). The triangulation achieved from interviews with governance in combination with the literature review and the use of NVivo 11 ensure the reliability of the results.

The procedures and criteria used for the analysis of collected data content followed the approach advocated by Bardin (2009), which consists of three stages: 1. pre-analysis; 2. material exploration; and 3. result treatment, inference and interpretation. According to the author, pre-analysis is the organization to make initial ideas operational and to systematize them. The material exploration consists of encoding, which is the systematic transformation of raw data with subsequent aggregation of units to be listed and categorized. The final stage is processing, inference and interpretation.

The analysis of evidence collected in this study came from a central assumption. This assumption is that process, network planning, governance and results

TABLE I

CATEGORIES USING THE STRUCTURE OF NODES AND REFERENCES AS CONTENT ANALYSIS BY SOURCES

CATEGORIES (NODES)	SOURCES (DOCUMENTS AND INTERVIEWS)	REFERENCES
Process	14	123
Planning	10	50
Networks	10	55
Governance	10	84
Results	14	96

Source: Elaborated by the authors.

contribute positively to the cluster in such a manner that it is constituted as a social innovation, as expressed in the following section.

4 RESULTS AND ANALYSES

Results from the interviews and document analyses are reported in this section according to the previously defined constructs in the theoretical framework and methodology. Furthermore, some relevant quotations from the interviewees are transcribed and some theoretical practical discussions are highlighted in order to substantiate this section.

4.1 PROCESS

The *process* category is comprised of stages of social innovation regarding its history, motivation and obstacles. This category presented the largest number of references, which enabled us to reconstruct the trajectory of the cluster and characterize it as a social innovation.

It is important to highlight that the cluster *Agroindústria Familiar e Diversidade do Médio Alto Uruguai e Rio da Várzea* effectively emerged in the second semester of 2012 from a public policy of State of Rio Grande do Sul combined with a public policy of the Federal Government under development since 2004. Indeed, the community organization had already been noticed for at least two

decades despite not being named as cluster. Before 2012, the cluster was treated as a territory by other public policies such as the Apoio aos Territórios Rurais e de Cidadania (Support to Rural Areas and Citizenship – Codeter) or Conselhos Regionais de Desenvolvimento (Regional Development Councils – Corede).

[...] Corede we are not starting from zero, but from the accumulation of what we have had for decades [...] We have a first phase which is an earlier buildup phase that comes via Codemau, via Territory. This is an earlier stage. (E4)

The cluster has its operations in the region composed of 42 cities in Northern Rio Grande do Sul, with a population of 281,806 inhabitants that live in urban areas (59.87%) and rural areas (40.13%) (Fundação de Economia e Estatística Siegfried Emanuel Heuser, 2010). This region is characterized by having a great number of small family agro-industries that process and commercialize different products such as pickles, juice, flour, jam, sugar cane jelly, honey, gourd, wine and yerba mate. Additionally, it has a significant extractive production of gems such as amethyst, citrine and calcite (over 90% of the world amethyst production) (Albarello, Diniz, Ritterbuch, Bonfanti, & Galli, 2014). This variety of products justifies the term cluster because it expands to other forms of value aggregation of not only products, but also services, such as tourism. “Diversity means different ways of adding value within the productive matrix. So, if you look at a gourd, it adds value” (E5).

In the beginning, the cluster was under the supervision of Universidade Regional Integrada do Alto Uruguai e das Missões (URI), campus of Frederico Westphalen, which managed the financial resources transferred by the state government. The main task at that time was to establish governance as well as identify and align the cross-cutting actions that support the cluster strategic planning.

[...] it was a one-year agreement in which URI was the managing board of the cluster in the first year. That time we started to organize the governance, the debate. After the first year (early 2013), we worked on the cluster governance and organization. Then, from 2014 onwards, we have been onto practical things, such as development, agro-industry purchases and so on. (E1)

Chambon *et al.* (1982) explain that the process requires participation and empowerment, starting from the conception up to the implementation of social innovation. In the case studied, participation and empowerment were pivotal to the project development. The main initial focus, as already highlighted, was the

governance formation in order to ensure that there was participation and that the actors were the protagonists of the cluster.

During the first year of discussion, they reached the consensus that the creation of a development agency could assist the project of the cluster as well as other regional development projects. Therefore, on August 29, 2013, Agência de Desenvolvimento do Médio Alto Uruguai (Admau) was founded with its headquarters in Frederico Westphalen. Admau began to manage the financial resource funds coming from the agreement with the state government. This fact corroborates Cloutier (2003) showing that it is possible to create new institutions based on the result of interaction and cooperation among the actors that understand and execute the project.

[...] this year of debate brought the idea of building the Development Agency to be the project executor [...]. (E1).

The main reason for the adhesion of different public policies and posterior formation of the cluster was the need and constant search for regional development mainly through value aggregation, which resulted in the region being more than a mere raw material supplier.

We wanted to add value. We wanted to value regional products a little more, see distribution sources. Actually, it was more with the intention of searching for something for the development of the region. (E7)

One of the concepts described by Dawson and Daniel (2010, p. 16) claims that

[...] social innovation is a collective process of generation, selection and execution of ideas for people who participate in a collaborative way to address social challenges.

It is arguable that the cluster idea is not the result of this collective construction, but the result of a public policy. Chambon *et al.* (1982) stated that the actors transcend the users and should thus permeate the whole environment. In this environment, the public sector is included, although it requires society to develop public policies. Additionally, Cloutier (2003) classified social innovations showing that the actors involved are society and the government.

Tardif and Harrisson (2005) pointed out that social innovation is a result of identifying a problem of economic and/or social order. In the cluster scope, it is clear that when value is not aggregated in the raw material produced by small

farmers, it results in lower economic profit and deterioration of survival social conditions forcing the rural exodus especially of younger people.

[...] we can sell more products. So, we might earn more. We can sell products at a better value. So, we will have more resources left. The children that have left home might come back [...] (E1).

This value-adding process requires a series of measures for its development. Some technical measures are related to the adequacy with current legislation, particularly health laws. In order for producers to sell their products, they need to give the consumer conditions defined by law and enforced by the government. One of the first obstacles of the cluster was to identify the obstacles in this process. There was a demand of having laws by the municipalities, producers lacked adequate legislation and trained professionals to assist them in the legalization of their small agro-industries and to supervise the implementation of the rules.

[...] actually, the municipalities need to deal with the part of legalization and encouragement of processing agro-industry [...]". (E4)

[...] the improvement in the laws and the issue of inspection services were the main obstacles. Everybody thought the agro-industry could not be formalized. In fact, it was not possible because there was no access to the legislation. Thus, the municipal inspection system is the beginning of agro-industry. (E5)

During 2014 and 2015, the main challenges of the cluster were governance maintenance, awareness of the mayors in supporting the agro-industries and the formalization of these businesses. In early 2016, the cluster was awarded a new official announcement of the state government, which guarantees the cluster to receive resources to support commercialization, inspection and system of implementation of point of sales. The agro-industries that have already legalized their activities will finally receive support commercialization.

Among the obstacles from the cluster consolidation process, it is necessary to highlight the duplicity of public policies, which often confuses the beneficiaries as seen in the following reports

[...] there are many white elephants built here and there, and the government will not do it anymore. From Iraí to Boa Vista das Missões, there must be about 4 or 5 pavilions for family agro-industry that are closed [...] (E1).

Similarly,

[...] for us, it is quite confusing. We have the cluster and Emater, which are two teams (cooperative staff and municipal staff). We also have Sebrae, Senar, Sesc. There are several organizations (E6).

In general, social innovation is treated positively. However, there are apparent obstacles throughout the process that are described by the participant actors, such as the difficulty that the government has to unify and develop joint actions.

4.2 PLANNING

The *planning* category is comprised of the main goals, challenges and definition of priorities. This category aims to identify the objectives of the change (Chambon *et al.*, 1982; Cloutier, 2003).

The cluster of Agroindústria Familiar e Diversidade do Médio Alto Uruguaie e Rio da Várzea has a Development Plan that was built using the participatory methodology, bringing together the actors from the agro-industrial sector of the region, governmental representatives, institutions of the S System, universities, and NGOs, among other organizations of civil society. Several participatory planning meetings were organized for the discussion and preparation of the document and its subsequent validation (Albarelo *et al.*, 2014).

[...] the planning along with the activities, the cross agendas, the activities of each institution... We also studied all the obstacles and evaluated what each institution could do [...] we set up a list of things to do [...] (E1).

In this Development Plan, eleven actions were defined being that some of them have already been started; namely, 1. environmental, fiscal and sanitary environment; 2. access to government programs; 3. market research group; 4. creation of a commercialization cooperative; 5. joint marketing plan; 6. creation of an origin label; 7. management training; 8. training for primary production; 9. capacity for industrial production; 10. trade capacity building; and 11. business plan creation.

All these actions have the specific purpose of regional development and may result in better quality of life for the population, corroborating what social innovation seeks, which is to meet the overall goals of those involved, seeking to reconcile individual and collective (common good) goals. For this, cooperation between the actors is necessary. The location specified here is related to the territory, allowing various types of innovation to be taken up and always committed

to transformation (Tardif & Harrisson, 2005; Haxeltine *et al.*, 2013; Avelino *et al.*, 2014). The pursuit of change is recurrent among the discourses.

[...] We needed ideas to seek alternatives for the region. We had to think of something that we could add value, use regional products a little more, and check distribution sources. We had the goal to seek for something to develop the region (E7).

Notably, the entire process for establishing priorities is through the cluster governance, which happens in a consensus.

[...] everyone exposes their opinions. There is no voting. However, we need to have consensus. For example, if a proposal receives 8 favorable votes out of 13, the proposal wins, but it finds resistance. So, we need to keep the idea of consensus production in all proposals [...] (E5).

Currently, the cluster is focused on consolidating the family agro-industry; however, it is necessary to take prior steps along with the municipal governments in the region to improve the legislation. Additionally, alternatives to develop commercialization mechanisms for the production with quality and scale are of pivotal importance.

[...] there were two areas, legalization and commercialization; two points that we would work on in the cluster. We thought that we could help the agro-industry to formalize; however, we faced the situation that the municipalities had no inspection service, so we could not help the agro-industry [...] the commercialization promotion was very restricted to those who were already formalized [...] firstly, we had to help cities to become organized and then we could go forward. So, the planning was carried out, but as I told you before, many things that had been planned needed to be planned again because other things should have been done before. The planning had to be reviewed (E1).

In terms of planning, the cluster as a social innovation seeks to define the best way to accomplish its goals. However, as Cunha and Benneworth (2013) note, there is no single path thus contingencies of each case have to be analyzed.

4.3 NETWORKS

In the category *networks*, an attempt to identify management strategies of the relationships and network of actors was carried out. Cloutier (2003) highlights

the diversity of actors and their active participation are considered essential conditions for the creation and implementation of new solutions.

The cluster of *Agroindústria Familiar e Diversidade do Médio Alto Uruguaie Rio da Várzea* was initially formed with the participation of 22 representative organizations from associations of producers, entrepreneurs, mayors, technical assistance charities, public and private universities, cooperatives, development boards, and *S System*.

At the beginning of the process, we called for a broader meeting with several institutions and people with institutional or private interests. From these first meetings, we started to have a representative group of the region. Today, there are nearly 28 institutions participating (E3).

This diversity of public, private and third sector institutions reveals the existence of formal and informal cooperation bonds, by which problems are being solved and overcome, redefining the agenda of relevant issues and the need for new mechanisms to solve them. In this context, people who participate collaboratively strengthen social innovation (Dawson & Daniel, 2010).

Participation and empowerment of all actors in all phases of the social innovation are fundamental for the success of the initiative (Chambon *et al.*, 1982). Notably, this unified pursuit for common goals exists in the cluster.

[...] this reunion, this union of institutions and their tasks; in short, you put everything on an agenda of cross-cutting actions for each one to see themselves and the others and what they are doing (E1).

There is a need to be constantly aware of the relationship quality among actors. Trust is built and becomes stronger after each meeting. Despite the diversity and quantity of institutions, it is evident in the speeches collected that not all institutions are involved, but when they are required, they collaborate in the development of activities.

[...] we have found some difficulty in bringing people together, but we have always had a quorum, people have been participating [...] (E1).

Reports have been focused on cultural issues of the region, indicating that individualism prevails over collectiveness, a situation that needs particular attention since social innovation requires synergy among the actors (Maurer & Silva, 2014).

[...] but people do not have the associative culture. They have the culture: 'this is mine'. So, it takes a long time to break that barrier (E4).

Similarly,

[...] we always work to include everyone, but people often work thinking only about themselves, which often ends up damaging the process [...] (E2).

The coalition and the diversity of actors are critical to the success of social innovation (Cloutier, 2003; Rollin & Vincent, 2007). Therefore, this category deserves attention from the cluster in order to minimize possible obstacles.

4.4 GOVERNANCE

The *governance* category includes the strategies of constitution and action of governance, its profile and leadership. The analysis of the governance issue is recurrent, which can be explained in the public policy of the cluster that traditionally focuses on governance as one of the steps in the project implementation.

The main purpose of the first project was governance, in fact, the aim was to consolidate it (E4).

It is possible to observe that the understanding of governance is presented in the cluster of Agroindústria Familiar e Diversidade do Médio Alto Uruguai e Rio da Várzea, which is lined up with what Sousa *et al.* (2015) recommended.

It is a participatory forum for companies, producers, government and local institutions that coordinates and organizes joint actions of the cluster resulting in initiatives of private institutions and public agencies that characterize the cluster in terms of the factors. Influences in the social/cultural/political context as well as characteristics regarding associations, solidarity, social cohesion, confidence and ability to generate local leaders to work with local governance are highlighted. (Albarello *et al.*, 2014, p. 28)

Since the cluster project had its formal beginning in 2012, one of the first tasks was to organize governance, requiring considerable time from the group. Even when considering the peculiarity of the clusters, it is pivotal to

observe the importance of the governance in social innovations, since it is an element that deserves more attention in the analysis. It is worth mentioning that the constitution process of the cluster and governance has historical roots in the region.

[...] Around 2003, 2004, we formed a committee to discuss the family agro-industry, which afterwards became the cluster governance leaders. This committee discussed the family agro-industry in the region and several actions were taken there [...] the constitution of governance has come from the buildup that we had already had with CODEMAU and CODETER. With these entities we were certain of one thing, social capital, I am not sure if this is the proper term; there was some work experience, meetings; there was some collective thinking, and the idea to create a collective agenda (E4).

Tardif and Harrison (2005) highlight that governance can take an innovative character, which seems to be the case of the cluster. In the speech of those interviewed and in the analyzed documents, emphasis on governance and the process of its constitution is seen as pivotal importance.

[...] again, what is going through the cluster is the organization governance. I think that this was the determining factor for the evolution of the work [...] (E1).

One of the main processes for the success of the cluster governance was the creation of ADMAU. This institution gave legal support to the actions of the cluster.

[...] The great advance in terms of cluster governance was the establishment of a management entity, which was the creation of ADMAU. All of those who were part of the governance were members of this institution. I think that at that moment we could materialize the issue of governance itself (E4).

It is important to note that the participation of family agro-industry, one of the major focuses of the cluster, is still modest. This fact is also highlighted by one of the interviewees.

[...] we have a lot of trouble in obtaining representation and having the agro-industry point of view present in the governance process of the cluster (E5).

Another point that deserves constant attention of governance is the management of relations, since it may avoid conflicts and mistrust among the actors.

The level of governance has much 'beauty', you know? Who is the person that does this and that? Who is the 'child's father'? The coordination must try to have the skill for it. If you make a poster but you forgot to cite an organization, you already have a conflict in your hands (E4).

Given this context, governance was established as a central category in this cluster. In such relevance, governance has the potential to deepen when it comes to social innovations.

4.5 RESULTS

The category *results* concentrates all actions concerning the cluster sustainability and the generated innovations. The cluster of Agroindústria Familiar e Diversidade do Médio Alto Uruguai e Rio da Várzea is characterized as a social innovation in line with the theoretical framework and creates new social relations, structures and decision-making procedures, arising from an individual and collective consciousness, promoting changes that lead better integration of excluded groups (Cloutier, 2003).

The cluster seeks a solution for a social problem by adding value to services and regional products, enabling an improvement in the life quality of the population. Economic, social and environmental results are already visible as the cluster is a major project that generates a variety of actions that in general seek effective change.

The main tangible results are: 1. promotion and participation in regional fairs, especially the Regional Fair of Family Agriculture, Agro-Industry, Crafts and Biodiversity organized in October 2015; 2. resources for the implementation of Modeling Project and Development of commercialization system, inspection and implementation of sales points; and 3. assistance to support the implementation of the Municipal Inspection System within municipalities. As for the intangible results, they are represented by the speech of the interviewees.

Agro-industry provides economic profit, income rise for the society, and valorization of a local identity and individuals (E4).

Similarly,

[...] it has improved, especially in terms of the organization of the agro-industry itself, in terms of processes, product quality, quality of working conditions (E1).

This list of actions linked to the cluster allows us to infer that there are innovations in the system. Among these, we can mention changes in the established patterns of action, structure, rules and all interfaces, generating social innovation as new social practices, new ideas, models, rules, relationships and/or social services. This way, it is possible to have access to social transformation as a fundamental, persistent and irreversible change in the whole society, far beyond individual subsystems (Avelino *et al.*, 2014).

5 CONCLUSIONS

This study aimed to explain and understand the cluster of Family Agro-industry from the social innovation perspective. In order to develop the study, we carried out interviews and analyzed documents from the cluster of Agroindústria Familiar e Diversidade do Médio Alto Uruguai e Rio da Várzea.

Based on the evidence collected, it is possible to assure that this type of agglomeration is a social innovation as a result of a collective society with government induction. To be a social innovation, it is necessary to align the theoretical framework produced, which characterizes it as a collective learning process that offers new solutions for demands and social needs. Collective learning from this cluster has been developed throughout its history and through its culture, which is linked to small subsistence farms (cold cuts, “*cuca*”, which is traditional sweeten bread from Southern Brazil, jam, cheese and others). Over the years, these small subsistence farms have lost space to the multinationals and their processed products. Changes in consumption patterns and habits as well as the appreciation of the rural way of life have provided the resignification of these small farms.

The network of actors in this cluster is characterized by diversity thus everyone who has common goals should seek alternatives for the solution of social problems. The government in certain societies has central power because it possesses resources that make it possible to induce public policies around the projects that society demands. Clusters such as of Family Agro-industry already exist in society; however, they are often disjointed and have no joint actions, which prevent the improvement of the living conditions of their actors. Consequently, this factor may lead to rural exodus and swelling of major cities by actors who search for alternatives for survival. Therefore, the support of the government regarding the development of social innovation, initially providing tools for gover-

nance, aims primarily to provide the conditions for coordination and planning in such a manner that they can run their paths independently.

Limitations of this study may be related to methodological choices because there are other clusters of Family Agro-Industry present in the State of Rio Grande do Sul that could be part of the study and thus strengthen the results, as well as other experiences in other Brazilian States or even other countries.

The central assumption that process, network planning, governance and results contribute positively for the cluster to be constituted as a social innovation can be confirmed. We concluded that this cluster contains all the elements necessary to be a social innovation. The main theoretical contribution to the social innovation field is the definition of constructs, especially governance, which has already had a consistent debate in other areas; however, it is not yet theoretically consolidated as an element that strengthens social innovation.

This study points out the importance of governance in the cluster studied, as well as the formation of the Development Agency, which has enabled greater autonomy and flexibility in decision-making. This governance feature in the cluster may be an element of social innovation that until now has presented itself as superficial. Further studies focusing on the relationship of public policies and social innovations are important since the combination of both may produce better results, especially when there is participation of society.

ARRANJOS PRODUTIVOS LOCAIS DA AGROINDÚSTRIA FAMILIAR SOB A ÓTICA DA INOVAÇÃO SOCIAL

RESUMO

Objetivo: Explorar e compreender os Arranjos Produtivos Locais (APLs) Agroindustriais Familiares sob a ótica da inovação social.

Originalidade/lacuna/relevância/implicações: A inovação social permite compreender como os problemas globais podem ser resolvidos a partir de elementos locais. A originalidade deste estudo está na análise dos APLs como uma inovação social, destacando que a sua formação impacta de forma determinante no desenvolvimento econômico e social da região na qual está inserido.

Principais aspectos metodológicos: Os trabalhos de investigação tiveram ênfase em entrevistas semiestruturadas com membros da governança do APL foco do estudo, além da análise das atas das reuniões da governança desde o surgimento do APL. A análise do conteúdo coletado foi realizada com o auxílio do *software* NVIVO 11.

Síntese dos principais resultados: A inovação social foi analisada sob o ponto de vista do processo, da formação de rede, do planejamento, da governança e dos resultados. Essas categorias, fruto do referencial teórico, permitiram explicar o APL da Agroindústria Familiar a partir da inovação social.

Principais considerações/conclusões: Os resultados apontam que o APL da Agroindústria Familiar analisado pode ser considerado uma inovação social na medida em que possui os elementos necessários para sua caracterização, com destaque para a governança como construto central e sua cultura de coalizão com os atores públicos, privados e do terceiro setor na busca de soluções às necessidades sociais.

PALAVRAS-CHAVE

Inovação. Social. Arranjos produtivos locais. Agroindústria. Familiar.

ARREGLOS PRODUCTIVOS LOCALES DE LA FAMILIA DE AGRONEGOCIOS DESDE LA PERSPECTIVA DE INNOVACIÓN SOCIAL

RESUMEN

Objetivo: Explorar y comprender los Arreglos Productivos Locales (APL) Agroindustria de la familia desde la perspectiva de la innovación social.

Originalidad/laguna/relevancia/implicaciones: La innovación social nos permite entender cómo los problemas globales pueden resolverse a partir de elementos locales. La originalidad de este estudio es el análisis de los APLs como una innovación social, señalando que su formación impacto de manera decisiva en el desarrollo económico y social de la región en la que opera.

Aspectos metodológicos principales: La investigación tuvo énfasis en entrevistas semiestructuradas con los miembros de gobierno de lo APL investigado, así como el análisis de las actas de las reuniones de gobierno desde los albores de la APL. El análisis de los contenidos recogidos se llevó a cabo con la ayuda del software NVivo II.

Resumen de las principales conclusiones: La innovación social se analizó desde el punto de vista, la formación de redes, planificación, gestión y los resultados del proceso. Estas categorías, debido al marco teórico, permite explicar el conjunto de la familia de Agronegocios de la innovación social.

Consideraciones dominantes/conclusiones: Los resultados indican que el grupo de la familia de Agronegocios analizó puede considerarse una innovación social

en que tiene los elementos necesarios para su caracterización, con énfasis en la gobernanza como un constructo central y cultura de coalición con los actores públicos, el sector privado y la tercera en la búsqueda de soluciones a las necesidades sociales.

PALABRAS CLAVE

Innovación. Social. Arreglos productivos locales. Agroindustria. Familia.

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