

Full Length Research Paper

Social capital in Brazilian wine industry networks

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The aim of this study is to analyze the role of social capital in the conversion of collaboration in a productive force and, consequently, the improvement of competitiveness of two Brazilian wine industry networks: Aprovale and Aprobelo. In a previous study, we concluded that there were statistical significant differences between social capital and competitiveness dimensions. In other words, this means that both levels of social capital and competitiveness differ significantly from one network to another. In this paper, we sought to analyze the results found in the quantitative phase in a qualitative-descriptive way. The main results pointed out that, despite economic, human and intellectual difficulties, a network can raise significant levels of social capital, since the network has shared goals and values.

Key words: Social capital, competitiveness, survey, wine industry networks, Brazil.

INTRODUCTION

The collaboration process represents a strategy that can assist in the survival and enhancement of business competitiveness, enabling the leverage of expertise and internal resources. This means that the heterogeneous characteristics of one firm relative to competitors may form the basis of competitive advantage for a company (Andrews, 1971; Thompson and Strickland, 1990). So what causes the difference in a firm performance is the quality of its resources (Collis and Montgomery, 1995). Operating through a collective strategy allows companies to increase the access to new opportunities, which would not be possible by working alone and could compromise their survival (Balestrin and Verschoore, 2008; Camarinha-Matos and Afsarmanesh, 2005; Lipnack and Stamps, 1994; Schermerhorn, 1975).

The networks appear in different forms, in different contexts, and from multiple cultural expressions. For this reason, there are many concepts for the term (Castells, 2000; Balestrin and Verschoore, 2008). The main factors that lead to the maintenance of this synergy are: The

trust between network members, the shared norms, the hybrid values, the collective identity, the culture and the historical conditions – which can be summarized through the social capital stock.

The concept of social capital has become popular in the 70s and has had a great development since the 1990 decade, primarily through the works of Putnam et al. (1993; Putnam, 2000), Coleman (1988), Fukuyama (1995; 1999), Nahapiet and Ghoshal (1998) and Onyx and Bullen (2000).

We argue that the social capital can influence some aspects related to the welfare and sustainability in a society (Fukuyama, 1995, 1999) or communities (Onyx and Bullen, 2000), and the performance of an organization or an individual (Watson and Papamarcos, 2002; Leana and Buren, 1999), as well as, the aspects related to sustainability and maintenance of competitive advantages of a network of (Wu, 2008; Beugelsdijk et al., 2009; Su et al., 2005), in which social capital can be considered as a strategic resource. Regarding to strategic resources, the resource based view (RBV) emphasizes that a strongly competitive resource is characterized by leading to greater profitability, by imposing barriers to new entrants in the market, by leading to the balance between exploitation of current

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resources and developing new ones, and also increasing the opportunity to acquire resources that allow higher returns (Wernerfelt, 1984).

This statement seems to answer the forgoing questions, allowing therefore, to say that social capital is a resource that leads to remarkably competitive collaboration and allows the remaining collective synergy to maintain the competitive advantages of a collaborative network.

The aim of this study is to analyze the role of social capital in the conversion of collaboration in a productive force and, consequently, the improvement of the enterprise network competitiveness. The research used the comparative case study method and qualitative analysis, conducted in two collaborative networks in the Serra Gaúcha Wine Cluster (southern Brazil): a Aprovale (Associação dos Produtores de Vinhos Finos do Vale dos Vinhedos) and Aprobelo (Associação dos Vitivinicultores de Monte Belo do Sul).

Both networks represent typical cases of change process that is happening in the Brazilian wine industry due to competitive pressure to which it is submitted. We believe that the lessons from this cluster can provide great information for other collaborative networks. This research can contribute to alternatives in the processes of endogenous formation and networks management, especially in regarding to the evolution and maintenance of networks competitiveness.

A BRIEF REVIEW ON SOCIAL CAPITAL IN NETWORK RELATIONS CONTEXT

The law, the contracts and the economic rationality provide a necessary basis, but insufficient, both for stability and prosperity. They need to be fostered with reciprocity, moral obligations and, trust, which are based more on habits, than on rational calculation (Fukuyama, 1999).

In the way of understanding the difference in organizational performance, in a context where all firms have access to almost the same types of resources, Putnam et al. (1993) argues that the civic and political culture represent important conditions to the social capital level, which in turn, generates collective power.

The importance of social capital can be understood mainly by three reasons: (i) The social capital stock presupposes many social ties which can transfer information (Coleman, 1988; Haезewindt, 2003) and as relevant information is often expensive, those who have easier access can obtain decisive advantages, (ii) the existence of trust and loyalty allows a reduction of transaction costs (Morgan, 2000; Skidmore, 2001; Fukuyama, 1999; Haезewindt, 2003); and, finally, (iii) the social relationships facilitate the collective action and help to increase production and innovation (Morgan, 2000; Skidmore, 2001). So, why it is possible to call this a capital?

Narayan et al. (1997) define "capital" as something accumulated that contributes to a higher performance or best results. Despite this definition, some social scientists have argued that social capital lacks the properties of a capital and should be called something other than capital.

In a workshop about social capital, sponsored by the World Bank, in 1999, some economists defended the inadequacy of the word "capital" in the social capital concept, because, for them, the social capital would not involve sacrifices of acquisition or opportunity costs (Robison et al., 2002).

Notwithstanding, there is another group of researchers who argue that social capital, indeed, involves sacrifice and provides income over time (by strengthening social ties), generating opportunity costs. For example, a research of Robison et al. (2002) compared the social capital to other forms of capital, and showed that it possesses the same properties as a physical capital, including: Processing capacity, capacity of creating another form of capital (Nahapiet and Ghoshal, 1998), capacity of enabling new investments and, also, capacity to be depreciated.

In our research, social capital is a form of capital. This way represents a strategic resource in organizations. Palda et al. (1999) consider the social capital as a factor in the production function. In general terms, the production function would have the four factors: production capital (K), labor (L), human capital (H) and social capital (Q): $Y = f(K, L, H, Q)$.

Therefore, like other forms of capital, social capital is also productive (Putnam et al., 1993) and may facilitate the coordinated and collaborative actions, which can increase economic results. Social capital generates positive externalities (Saguaro Group, 2010) as it enables the achievement of certain goals that would be unattainable (or, at least, would be difficult) without (Callois and Aubert, 2007; Skidmore, 2001). The social capital is effective and its absence represents almost an insurmountable obstacle to organizational performance (Putnam et al., 1993).

When there is trust, there is an expansion of horizontal relations (Fukuyama, 1999). In an environment where there is a higher stock of social capital it is possible to take better advantage of growth opportunities (Putnam, 2000), mainly by the accumulation of information flows that facilitate collective action (Andrevski et al., 2007; Coleman, 1988).

Therefore, we defende that trust, stability, durability of relationships and the closure of the network are key elements in pursuit of high levels of trust and norms of cooperation. These qualities also influence the transparency and visibility of mutual obligations (Putnam, 2000; Nahapiet and Ghoshal, 1998; Coleman, 1988).

The decision to participate in a cooperation agreement is coated with social interaction. The interactions between agents are the key element of a collaborative mechanism; whatever the business continuance and objective; a good business partner has become a major business

asset, that is, an advantage from the collaboration (Kanter, 1994). The network's success is closely related to the quality of the relationships among its members, in other words, to the level of social capital.

As some of the major advantages and goals for creating or linking a company to a collaborative network we can highlight (Balestrin and Verschoore, 2008):

- (a) Generation of economies of scale and market power, that is, gains due to the expansion of individual strength through growth in the number of affiliates to the network;
- (b) Access to solutions to the difficulties of businesses, through services, products and infrastructure provided by the network for the development of its members;
- (c) Provides conditions for learning and innovation by sharing ideas and experiences among members through innovative actions, developed jointly by the participants;
- (d) Reduction by sharing costs and risks of certain actions and investments that is common to the participants;
- (e) Generation and maintenance of social relations: Approaching agents, increasing trust and social capital and leading the group relations beyond its main economic reasons.

In this sense, social capital becomes a resource remarkably competitive, acting as an enabler of individual and collective capacities, through collaborative practices. In the organizational context, social capital can be defined as one of the resources that reflect the character of social relations within organizations - at various levels of the company - through collective orientation and shared trust (Leana and Buren, 1999).

One way to investigate social capital is to access its structural, cognitive, and relational dimension (Nahapiet and Ghoshal, 1998). In this approach, social capital is understood as the "sum of the actual and potential resources embedded within, available through and derived from the network of relationship possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998). The interaction among the agents of the network is what gives shape to the relationships.

The structural dimension considers the pattern of connections among the actors and includes connections and network settings in terms of density, connectivity, hierarchy, and organizational adequacy. The relational dimension refers to assets that are created and leveraged through the relationships and include attributes such as identification, trust, norms, sanctions, obligations and expectations.

Finally, the cognitive dimension refers to resources that represent shared views, interpretations and systems of meanings, such as language, codes and narratives (Nahapiet and Ghoshal, 1998).

The social capital produces socio-emotional assets, expressed through emotions, feelings and relationships (Robison and Flora, 2003). The interaction between the agents in the network gives shape to the relationships. A

lot of ties form a dense network (Granovetter, 1973), with singular relational characteristics (Nahapiet and Ghoshal, 1998), which benefits business results, and consequently, competitive advantages (Sequeira and Rasheed, 2006; Watson and Papamarcos, 2002; Wu, 2008).

RESEARCH METHOD AND CONTEXT

This study is a continuation of a quantitative research, which aimed to measure levels of social capital, according to three dimensions, through a survey of owners of the wineries of the Brazilian Wine Industry Cluster. In this paper, we analyze qualitatively the results found in the quantitative phase. Thus, we aim to conclude about the role of social capital in the conversion of collaboration in a productive force and, consequently, the improvement of enterprise network competitiveness. The cluster's production of Serra Gaúcha is responsible for 80% of the national production of wine. The production of grapes in the cluster of the Serra Gaúcha is a typical rural activity of family properties, thus, the impacts generated by the market of wine are economic, as well as social. Today, the chain of grape and wine production goes from 16 to 18 thousand families in the state of Rio Grande do Sul (Emprapa Uva e Vinho, 2010).

Recently, viticulture institutions were created in Brazil, with the aim to increase the collaborative process among different agents in the wine chain: (i) in 2000, IBRAVIN started its operation with the unique purpose of promoting and institutionally organizing the whole chain – grape, wine and juice producers, (ii) in 2002, an Export Consortium, called "Wines of Brazil" was created in order to facilitate the entry of fine wines in the international market, and to participate in fairs and events and exchange information among the various actors of the viticulture sector, (iii) in 2004, the launching of the National Chamber of Viticulture, Wine and Derivatives, a public agency, put many entities together throughout the supply chain in Brazil with the objective to promote the junction of the private and public sector, and the discussion to regulate the sector and support the most important strategies for the production chain (Fensterseifer and Alievi, 2005).

There are two important collaborative networks in the cluster: The Aprovale (Association of Producers of Fine Wines of the Valley of Vinhedos) and the Aprobelo (Association of Producers of Fine Wines of Monte Belo) (Table 1). The Aprovale network is composed of 31 wineries, which have 77 member-owners, while the Aprobelo network is formed by 12 wineries, in a total of 32 owners. In this research, the comparative case study method was used (Yin, 1994). Documents, direct observation during meetings of the networks, visits to companies and interviews with the partner-owners were used as data collection frameworks. Additionally, we took advantage of the results of the quantitative phase.

Social capital measuring

In the quantitative phase of research, we concluded that there were statistical significant differences between the means for the social capital and competitiveness dimensions. In other words, this means that both levels of social capital as the competitiveness differ significantly from one network to another (Table 2).

Despite the significant differences identified by research, it is clear that both Aprovale and Aprobelo have high stocks of social capital. However, according to the practices, culture, values, and common goals, each of these associations have developed a different dimension that stands on the other. Thus, in Aprovale, the most present is the cognitive dimension of social capital, while in Aprobelo is the structural dimension.

In general, the result seems to indicate that relations between

Table 1. Main aspects of the two networks compared.

Item	Aprovale network	Aprobelo network
Year of foundation	1995	2003
Number of wineries	31	12
	1. Red wines: 3,993,904 L	1. Red wines: 44,000 L
	2. White wines: 4,936,990 L (white sparkling wines included)	2. White wines: 7,000 L
Production	3. Rosé wines: 209,971 L (rosé sparkling wines included)	3. Sparkling wines: 75,000 L
	4. Grape juice: 66,750 L	4. Grape juice: 20,000 L
Average of hectares cultivated by winery	88 hectares / member	10 hectares / member
Exportation	Yes	No
Indication of origin	Acquired in 2002. This is the first Brazilian region to get the Indication of Origin of their products.	In March 2008, the Ministry of Agriculture (MAPA) published a document that ensures the regional identity of Monte Belo do Sul. This is the starting point for the process of indication of origin at the INPI (National Institute of Industrial Property). It is expected that the project be completed in 2012.
Denomination of origin	The Valley of Vineyards will be the first region, in Brazil, with Denomination of Origin (DO) for its wines. The process is in the final stage.	{Waiting for Indication of Origin.}
Wine tourism	Route is internationally recognized and commercialized by the largest national tourism companies. In addition, the route is available on the web. The network has its own headquarters, where tourists can request information.	With little structure for tourism, without a route set. The network counts with the support of municipal government to develop the project “Monte Belo mais Belo {Monte Belo more beautiful}”, which aims to call attention for the landscape, the conservation of the central square and the portico of the city. There are experience exchange projects with Italian cities (<i>Gemellagio</i>)
Cities covered	Bento Gonçalves, Garibaldi e Monte Belo do Sul	Monte Belo do Sul
Aims	The association was founded to meet the legal requirements of the geographical indication.	To develop and to encourage the improvement of wine products produced in the family wineries, and to preserve the physical spaces of Monte Belo do Sul, in order to empower local tourism.
Size of the wineries members	1. 3 big producers (over 500,000 L / year) 2. 9 medium producers (between 50,001 to 500,000 L / year)	All wineries are micro producers
	3. 19 micro producers (up to 50,000 L / year)	
Titles	Aprovale is situated in the rural municipality of Bento Gonçalves, that holds the title of “the Brazilian capital of grape and wine”	Monte Belo do Sul is the largest producer of grapes for sparkling wines in Latin America and the largest city of wine producing per capita in Brazil

Table 1. Contd.

Social networking sites	www.Aprovale.com.br Facebook and Orkut	None
Awards	<p>In addition to national awards, Aprovale has several international awards. Among them, the most important are:</p> <ol style="list-style-type: none"> 1. <i>Les Citadelles du Vin Bordeaux</i> (France): 3 medals 2. <i>Sélections Mondiales des Vins</i> 2011 (Quebec-Canada): 1 medal 3. <i>Concurso Internacional de Vinos y Espirituosos</i> (Miami – EUA): 3 medals 4. International Wine Challenge (London-England): 9 medals. <p>Aprobelo participates only in national competitions. Some of them are:</p> <ol style="list-style-type: none"> 1. <i>Avaliação Nacional de Espumantes</i> held in Garibaldi city (National Evaluation of Sparkling Wines): 3 medals 2. <i>Avaliação Nacional de Vinhos</i> held in Bento Gonçalves city (<i>National Evaluation of Wines</i>): 1 medal. 	

Table 2. Social capital results for each network.

Parameter			Aprovale		Aprobelo	
			Mean	S.D.	Mean	S.D.
Social capital dimension	Relational*		3.1446	0.6719	4.0399	0.5816
	Estructural*		2.9981	0.7353	4.0972	0.4478
	Cognitive*		3.1598	0.6139	3.8710	0.5140

*, $p < 0.010$.

groups are much more crisp and defined with respect to trust, norms of reciprocity, participation, bonds and sense of belonging in Aprobelo, whereas the goals and shared experiences are most prominent in Aprovale. The biggest difference found is in the structural dimension, indicating higher combination of information and problem-solving situations in Aprobelo. The reasons for these and other differences are discussed subsequently.

Comparing relational social capital in Aprovale and Aprobelo networks

The relational capital is responsible for the expectations, public spirit, social identification, helpfulness and collaboration network. It is known that the main positive externality evidenced by the presence of such elements is the generation of collective solutions guided by the collaboration. This corroborates Camarinha-Matos et al. (2006) study, stressing that collaboration implies mutual engagement and synergy between the network actors.

The main factors that lead to the maintenance of this synergy and facilitate the exchange of information and ideas are the generation of trust between the companies, their shared norms and values, collective identity and common purpose (Birkinshaw et al., 2008; Mol and Birkinshaw, 2009; Hamel, 1998). All these features represent elements of relational social capital.

It is possible to cite the case of the Aprobelo's collective unity of sparkling, which is configured in a collective solution. The deployment of the unit is part of the medium-term strategic plan of the association. The investment is about US\$ 622,096.00 (R\$ 1,119,772.00). The construction would reduce costs for wineries

and aims to meet the future rules of indication of source. So with a lower cost, thanks to the collaboration and sharing of values, such as belonging and social identification, all the participating wineries will benefit from this collective achievement, allowing all cooperated to produce their sparkling wines, using a single structure.

Another example of collective spirit is the creation of Aprovale store, which is also an important structure for the marketing of wines of all its members, since not all the wineries have space for tourists to do visitations and shopping. This infrastructure comprises the collective involvement of businesses, strengthening their linkages and linking them more closely to the network.

Despite these examples of the presence of social capital, the primary motivation that led the companies of both networks to conduct collaborative action was economic: the participation of these enterprises in networks provides them a new order of competition. For instance, the Aprobelo was founded by 12 winemakers who produced wines for their private use or sold it in bulk (4.5 L bottle). Many of them were settlers, and since the founding of the association they legally constituted the companies and started producing wines and sparkling wines together, using the brand "Vineyards of Monte Bello". This action enabled to add value to their products and also to establish higher profits.

Despite each winery produces and bottles its proper wine, labeling it with its brand, members of Aprobelo decided to use a common packing that would allow identifying the origin of the product, as belonging to the same social group. The box, front and rear, refers to the association and brings on one side of the entification of the winery and on the other side, the name of all twelve participants. This is an example of joint strategy and joint action (Macke et al., 2010), which allows us to affirm that there is

an identification feeling between network members.

Such joint strategy shows a sense of belonging and social identification and determines the ability of networks to generate recognized brands, reaching greater public (Lorenzoni and Baden-Fuller, 1995; Von Ende, 2004; Balestrin and Verschoore 2008).

In the same sense, one can highlight the conquest of the indication of origin by Aprovale. The wineries of this network founded a group with common goals and this group had to strengthen ties of cooperation in order to achieve these goals. Today, every company that produces in that territory in accordance with the rules of IPVV acquires the right to label their products. This guarantees a distinction in the global wine market.

In addition, regarding this spirit of collaboration, the Aprobelo held monthly meetings with its members, and each time, a different member offers its head office and is responsible for organizing the meeting (including the dinner afterwards). Actions such as this one create reciprocity and helpfulness intra-group. These gatherings that occur between businesses, employees and family members involved in the network are important to solidify the relationship of trust and also to provide informal conversations about the opportunities, challenges and future of the network.

It is also important to highlight that both Aprovale and Aprobelo have strategic tools for managing their networks such as participatory planning and action plan, which are true forms of prioritizing joint actions, respecting the views and aspirations of the members. These actions demonstrate the existence of collective spirit, helpfulness, respect for individuals and especially the existence of social identification and ties, in other words, relational social capital.

Comparing structural social capital in Aprovale and Aprobelo networks

This dimension of social capital is closely related to combinations of information and knowledge that allow the network to generate a positive externality of reducing costs and risks. Therefore, the motivation to maintain connectivity between the actors is the access of information. The more information you have, the more ideas are produced and to facilitate such exchange of information, there must be synergy between the actors in organizations (Birkinshaw et al., 2008).

Visits to national and international business fairs are the most common action used by the networks to exchange information and knowledge. Most of the time, not all members can participate. In this case, some of them are chosen through voting to represent the group at the event. This alternative allows the reduction of costs to access new information.

The business fairs allow entrepreneurs the opportunity to know other experiences and think collectively on the trends and challenges they are facing (Balestrin and Verschoore, 2008). The creation of such forum can become a competitive advantage when developing strategies for the network. One example of these connections that enhance the formation of weak ties is that Aprobelo network sought, an alternative for industrialization of their grapes to produce sparkling and white wines (through a partnership with Embrapa Grape and Wine), in 2005. This action not only allowed to overcome a technological barrier (because the wineries did not have the equipments for producing sparkling wines), but allowed the achievement of the economic results that have never been achieved before now. Besides the partnership with Embrapa, the Aprobelo joined the project "Together to Compete", a partnership with regional government agencies for development.

The Aprobelo network also participates in the project "qualification of small farmers to create a center of excellence in the production of fine wines", through the public call of the Ministry of Science and Technology, The Brazilian Service of Support for Micro and Small Enterprises (SEBRAE) and the Research and Project Financing (FINEP). The Brazilian Agricultural Research Corporation,

Corporation, Grape and Wine Division (Embrapa Uva e Vinho) is the manager and Sebrae and Finep are funders.

In addition, Aprobelo is part of a pilot project, which aims to serve as a basis for formatting the vineyards national register through the georeferencing of the vineyards of Monte Belo do Sul. This project is coordinated by Embrapa Grape and Wine. The funds will be provided by the Ministry of Agriculture (MAPA) and the project still has the support of the Brazilian Institute of Wine (IBRAVIN) and the Municipality of Monte Belo do Sul. Besides this pilot project, the search for information to the process of geographical indication of origin "Vineyards of Monte Belo" has the support of the University of Caxias do Sul (UCS), the Federal University of Rio Grande do Sul (UFRGS), Embrapa and Sebrae.

Despite of presenting a lower average of structural social capital (in comparison to Aprobelo network), which suggests fewer opportunities to exchange information, Aprovale network also has links with other organizations in the cluster that enables this network to increase its connectivity. Thus, we can mention the work carried out jointly with the University of Caxias do Sul (UCS), Embrapa and the Federal University of Rio Grande do Sul (UFRGS), in the geographical boundaries project, carried out for the process of Denomination of Origin "Vale dos Vinhedos".

The Aprovale network also has its own projects, derived from strategic planning. These projects seek to achieve the objectives of: (i) strengthen the management of Aprovale, (ii) to consolidate the market position, (iii) strengthen the culture of cooperation, (iv) enhance relations with the community, the government and the tourist trade; (v) encourage the ongoing search for excellence of products and services and (vi) to protect and to preserve the natural landscape and cultural identity. The main partners in these projects are: Embrapa, Sebrae, Ibravin, governments of Bento Gonçalves, Garibaldi and Monte Belo do Sul, UCS, Department of Rural Development, Fishing and Cooperatives (EMATER), UFRGS, FINEP and Foundation for Research Support of Rio Grande do Sul (FAPERGS).

All these actions promote the exchange of experiences, information sharing and greater integration of the group. Thus, the group's engagement in the search for information, the friendship and the reciprocity are increasing the stock of structural social capital. This provides overall cost savings to the pursuit of information, conflict resolution and solutions to management problems.

The collaboration involves sharing risks, resources, responsibilities and rewards precisely, based on the mutual engagement between participants (Camarinha-Matos and Afsarmanesh, 2006). In this perspective, it is possible to emphasize that the risks in the implementation of certain actions are reduced.

Comparing cognitive social capital in Aprovale and Aprobelo networks

This dimension refers mainly to the advantages shared by the socialization of tacit knowledge built through spontaneous exchanges related to culture, language and shared habits. Analyzing the performance of the two networks under study, it is possible to see a good use of the interactions between the actors. In fact, both Aprovale and Aprobelo networks have formal and informal meetings that contribute to the collective learning of these groups.

An exploratory research conducted by Wolf et al. (2008) showed that investment in social capital, through improved links and relationships between the agents, is the factor that shapes the "operational environment", which guarantees the maximum commitment of all stakeholders. A new action will only be effective when all stakeholders are engaged in a collaborative relationship and nurturing the same values. Thus, the transformation of ideas into practice rooted in the organization requires a general and

sustained effort. Therefore, this effort requires coordinated and collaborative actions, shared values and common culture, which only the cognitive social capital of the group is able to provide.

Interorganizational knowledge, created by the interaction between companies in a network, is one of the larger dimensions of knowledge generation (Balestrin and Verschoore, 2008). Moreover, Lorenzoni and Baden-Fuller (1995) noted that to have a collective learning is necessary in an environment of synergy and stimulation in which the experiences, feelings and mental images can be shared. Considering the great difficulty of decoupling, the dimensions of social capital, some of the examples cited in the foregoing can contribute also to this cognitive dimension. Among these, it is possible to mention the learning from participation in fairs, the generation of joint solutions, the courses and lectures attendance, as well as, the collective strategic planning of the network, which are ways of providing exchange of information, which become collective learning. This way, the collective learning is the result of shared experiences and goals.

Balestrin and Verschoore (2006) define the factor of "learning and innovation" as the sharing of ideas and experiences among members and the innovative nature of the actions carried out jointly by these members. Among the joint activities, it is possible to highlight the concern of Aprobelo and Aprovale with the cultural and educational activities to provide a higher quality product, which, in turn, generates competitiveness. An example is the project named "Qualification of Small Producers to Create a Center of Excellence in the Production of Fine Wines in specific regions". The project aims to generate knowledge and technologies to improve the quality of the wines produced, making the wine more competitive and endowed with greater added value.

In addition, the project aims to transfer knowledge and technology to winery members and to other new partners that may be included in the group, in an effort of enabling economic and social development in the region. Activities of this nature provide knowledge and information to the network, necessary for each member, through a process of collective learning. This demonstrates that alliances can be a natural complement to strategies for enhancement of scientific and technical knowledge of a group of companies. In the design of arrangements and local systems of production, the innovation process is based on interactive learning, arose from the skills and tacit knowledge that allow the development of a given technology (Lundvall, 1992) and a certain *savoir faire*, essential to the process of designation of origin of the two networks. It is necessary to understand the nature and dynamics of learning. The user-producer interaction in the development of a given technology means that the resulting learning processes are interactive, require trust and involve cultural contexts that go beyond the contractual relations of the market. At this point, the institutions of a particular local production arrangement become important to establish the game rules, and the policies, such as the case of the studied networks (Lundvall, 1992).

The proximity among the agents favors fluidity of relations of cooperation and innovation tend to be more intense in these local spaces (Fensterseifer, 2007; Fensterseifer and Alievi, 2005). As we observed in this study, the geographical proximity offers important insights for better understanding of how knowledge, particularly tacit knowledge, brings gains in competitiveness for companies.

Conclusions

In summary, the results state that the Aprobelo network has better conditions to leverage the competitiveness of its members, based on organizational assets, use of endogenous resources and networking. The major source for improving the competitiveness of the

Aprobelo is located on its organizational assets. In other words, the resources present in each of its members have allowed the Aprobelo a good use and applicability of organizational best practices to improve network competitiveness. In the case of Aprovale, the main source of competitiveness comes from its own networking which is significantly larger than Aprobelo.

Thus, Aprobelo – the smallest network and which has more economic, human and intellectual difficulties - showed higher stocks of social capital. In other words, companies into this network have a greater ability (or need) to develop relationships based on elements such as cooperation and reciprocity (structural social capital dimension), trust and participation (relational social capital dimension).

It is possible to see that this combination of features and elements is unique for each network, which can also generate a single result. For Williamson (1975, 1985) this reflects the idea that the transactions within each company and among different companies results in something "idiosyncratic", that is, the path dependence of each individual firm is, in general, extremely difficult to identify and to replicate (Barney, 1991; Collis and Montgomery, 1995; Dierickx and Cool, 1989). Thus, the combinations among social capital elements present in Aprovale and Aprobelo networks can generate unique externalities to each group, regardless of the stock of social capital in each dimension. Table 3 describes the actions that have been developed by the networks surveyed, according to the elements that characterize collaborative networks, described by Balestrin and Verschoore (2008). Besides the features described in Table 3, it is important to compare some goals that differentiate the associations described. The Aprovale was created with the objective to meet the goal of constant pursuit of technological issues in wine production. Moreover, a major initial objective of the association was to obtain the seal of geographical indication for the wines produced in the region, which requires, mandatorily, the creation of an association. It is important to note that, although the vineyards have made improvements in the production process, the technical and operational conditions demanded to achieve this certification existed previously.

Although Aprobelo also aims to conquest the geographical indication, it has some elements that differ, primarily in structural terms, in comparison to Aprovale. Since they are smaller wineries, companies associated to Aprobelo need to work together, even in structural terms. The creation of an effluent treatment plant used by all winery members is an example of this need. Moreover, the joint use of equipments, the adoption of packaging and other materials together (with the aim of reducing costs) and the project of building a headquarter for the association, including a complete structure for the manufacture of sparkling wines in cooperative, reinforce this finding. These characteristics present in the Aprobelo network may explain the significative presence of social

Table 3. Collaborative network elements and actions performed by Aprovale and Aprobelo networks.

Element	Conceptual definition	Aprovale	Aprobelo
Market power	Generation of economies of scale and market power (extension of individual power through the growing number of companies associated with the network).	Growth in the number of members (31 wineries and 39 organizations of various sectors)	Association of small producers; some of them had no formal business before the creation of the association
Access to solutions	Access solutions to the difficulties of companies, through services, products and infrastructure developed and provided by the network.	1. Obtaining the geographical indication 2. Construction of headquarters for the association 3. Creation of marketing retail for the products of members	1. Implementation of an effluent treatment station 2. Project for the construction of headquarters for the association
Learning and innovation	Conditions for learning and innovation by sharing ideas and experiences among members.	1. Technical visits and trips, with the purpose to leverage learning into the network 2. Partnership with universities and research institutes	1. Technical visits and trips, with the purpose to leverage learning into the network 2. Partnership with universities and research institutes
Reducing costs and risks	Reducing costs and risks, by sharing them through actions and investments that are common to the participants.	The process of obtaining the designation of origin	1. Process for obtaining the geographical indication 2. Project of the collective plant for production of sparkling wine
Social relationship	Consolidation of social relationship among individuals, bringing them closer and increasing the trust and social capital, bringing the group relationships beyond economic aims.	Formal meetings	Monthly meetings and informal dinners.

Source: primary results, using Balestrin and Verschoore (2008) taxonomy.

capital elements, such as cooperation and reciprocity (structural dimension), trust and participation (relational dimension).

Social capital has a qualitative dimension, which must take into account the nature of collective action that a group is capable of. Thus, we sought to link the results found in this study to demographic, historical and cultural issues present in the region studied. In the future, this process will be deepened and expanded to other collaborative networks.

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