

Social Capital And Commitment in the Brazilian Wine Industry

Janaina Macke
Denise Genari
Kadigia Faccin

Abstract

The purpose of this paper is to contribute to the literature on organizational social capital and organizational commitment in collaborative networks context. Firstly, we identified the most important elements that compound these two concepts. In order to do that, we surveyed 193 employees of 74 companies' members of a food network – the Brazilian Wine Industry Cluster. Finally, we sought to better understand the relationship between commitment and social capital. The results show that affective and normative organizational commitments enhance social capital development, specially in relational and cognitive dimensions. These findings revealed that employees may execute some tasks as a way of reciprocity to the support and trust - as well as, the other social capital elements - that have been placed on them. In addition to contributing to the literature, we hope to provide an improved understanding of the determinants of organizational social capital in collaborative network context.

Keywords

Social capital, commitment, wine industry, Brazil

Introduction

Since Robert Putnam (1993) seminal book entitled "Making Democracy Work: civic traditions in modern Italy", many researchers have focused on the social capital theory, as an alternative to answer some unclear questions in every social interaction situation. This situation can be observed in the network context: with the social context of collaborative networks becoming increasingly important, research has broadened the traditional conceptualization of competitiveness to include and emphasize the 'soft' element, like social capital (Macke, Sarate and Vallejos, 2010).

The concept of social capital comes from the sociological field. Social capital is comprised of formal and informal systems of norms, institutions and organizations that promote trust and cooperation in communities and also in a wider society. It is "capital" because it is a resource that provides the growing of the well-being and "social" because it is not exclusive property of individuals but is owned by social groups (Fukuyama, 1999).

The theme of social capital, accessed in the organizational environment, can be linked to other constructs, for example, the work commitment, which refers to the individual's identification with the organization, characterized by belief, acceptance of organizational values and goals and by the desire to remain as a member of the company and make efforts for the benefit of the organization (Mowday, Porter and Steers, 1986).

This relationship has already been studied - in the organizational environment - by Watson and Papamarcos (2002) who claim that the presence of social capital through relationships of trust, communication and shared norms is levered by the increase in organizational commitment. This process leads to reduction in transaction costs of the company.

Therefore, the main objective of this study is to identify and understand how social capital and commitment are related in the environment of a collaborative food network: the Brazilian Wine Industry Cluster. The relevance of this study is the assumption that only economic

variables are not sufficient for economic development even more when we are considering collaborative networks.

The Brazilian Wine Industry Context
Brazil occupies the 17th position in the ranking of wine producers in the world. Figured as the fifth largest producer of the southern hemisphere, which includes countries of more recent production, exceeded only by Argentina, Australia, South Africa and Chile (Fensterseifer, 2007).

Countries like France, Italy, Spain and the United States, with significant cutting-edge technology in this sector, followed by Argentina, hold 60% of the world production of vineyards and are direct competitors of domestic wines, especially those produced in the Serra Gaúcha (Food and Agricultural Organization, 2008).

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 impact 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).

In addition to the networks of cooperation in this emerging industry, other agents form the basis for sustaining the wine industry, such as higher education institutions (UCS, Unisinos, CEFET-BG, UFRGS, UFSM), Embrapa, Fepagro, Emater, Map, Sebrae / RS, Ibravin, Uvibra, Sindivinho. This social interaction, highlights the existence of Social Capital in rural communities (IBRAVIN, 2010). Social Capital is based on the predominance of social virtues and not just individual (Fukuyama, 1999). Thus, these companies will have better conditions to innovate organizationally, since the high degree of confidence will allow a variety of social relationships.

Recently, viticulture institutions were created in Brazil, which 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 of 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 (Visão, 2005).

The main technical factors identified as restrictive to the sectoral competitiveness in Brazil were discussed in other wine producing countries. In Australia, the industry realized the need to reduce the environmental impact of production processes and avoid risks to consumer's health. In South Africa, over half of all wine companies systematically invest in employees training (deductible from income tax) on sectoral institutions especially created for this role (Academy of Grape and Wine). For the Australian wine industry, the availability of human resources (from the producer to the director of the company) would require the structuring of an educational and training system where the employees have multiple skills, and motivation, therefore resulting in an accessible and high quality process (Visão, 2005).

The Governmental policy (grants, taxes, etc.), the access and terms of financing and the production costs have been pointed as the most restrictive factors for the competitiveness of grape farmers of Serra Gaucha. The producers of fine and regular grapes believe that the quality of grapes produced and the volume of production and productivity that can be achieved in the property (the potential of scale) are the most distinctive skills against competitors from other states and countries (Visão, 2005).

The difficulties related to financing and to the production cost of grapes is a common problem for growers who do not have economy of scale for profitable activity. In Argentina, the small grape producers have difficulties in order to compensate for the small scale production with the added value of raw materials offered - a situation partly explained by difficult access to funding, low technical skills and unfavorable cost structure. In fact, although the degree of specialization of the productive sector - 83% of production is directed to the preparation of wine - and the provision of technical assistance and pesticides can't, producers find it difficult to adopt quality systems that increase the fixed costs and variables of the operation, reducing the profitability of the business (Azpiazu and Basualdo, 2003).

Faced with competition from a larger scale, marketing skills, access to natural advantages and institutional and privileged relationship with the major international retail chains, the industry's survival depends on its ability to implement strategies focused on specific market segments by supplying products with different characteristics.

The only way to compensate the asymmetries (in one hand, suppliers of production inputs, and on the other, suppliers of inputs and equipments, and retail) related to the superior bargaining power of sectors placed in the two base segments of the industry (wine production and wine processing) is through the consolidation of cooperation and coordination mechanisms, coupled with the strategy of value-added products in the industry, able to counteract with this structural disadvantage (lack of economy of scale).

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).

APROVALE was founded in 1995 to meet the legal requirements of Geographical Indication. The INPI (National Institute of Industrial Property) is a representative of the community that works in the production of goods or the provision of services that we seek to protect.

Thus, six wineries joined and started this process. Over time, the functions of the association were expanded and thus expanded the goals. Today, APROVALE has 31 wineries and 25 associated members none producers of wine, among hotels, inns, restaurants, handicrafts, and other cheese shops. The Vale dos Vinhedos produced in 2007, 7.5 million liters of fine wine equivalent to 10 million bottles (APROVALE, 2009).

The Vale dos Vinhedos was the first region of Brazil to seek the advice of the Origin of their products, displaying the seal of Control in wine and sparkling wine produced by associates. The request for geographic recognition sent to the INPI in 1998 was achieved only in 2002 (APROVALE, 2009).

Indeed, the location of vineyards is subject to the rule of comparative advantages which, in turn, linked to factors such as culture, technology production, tradition and experience can be converted into competitive advantages.

Therefore, no region can simply be classified as good or bad for the wine production, but distinct to its potential, the recovery will depend on the perceptions of their strategists, institutions and entrepreneurs (Visão, 2005).

The distinction of the potential of each region is given by the geographical indication, where producers, traders and consumers have demonstrated that some products from certain locations have individual qualities, attributable to their geographic origin. The valley has a geographical indication of origin and is already adapting the process to recognize the Geographical Indication by Designation of Origin.

The volume exported by the entity linked to wine was 426,247 liters, representing US\$ 1,407,882. It is also noteworthy to include APROVALE's renowned wineries such as: Don Laurindo Winery, Don Candido Winery, Wine and Winery Miolo Cordelier (APROVALE, 2009).

APROBELO was funded in 2003 and currently has 12 wineries involved. Monte Belo do Sul is the biggest producer of grapes for fine Brazilian wines (the largest city producer of wine per capita), were 95% of the economy comes from the countryside. Paradoxically, the council does not include the renowned wineries and none of the wineries export their products (APROBELO, 2009).

In 2004, a technical committee was formed with representatives of APROBELO, researchers of Embrapa Grape and Wine and the University of Caxias do Sul, to draw up the draft legislation of the future production of indication of origin for fine wines of the region of Monte Belo. In March of 2008, the Ministry of Agriculture Livestock and Supply, reported the Technical Circular that characterized the regional identity of Monte Belo to present his indication to the INPI (APROBELO, 2009).

To sum up, the Brazilian wine industry has been characterized by increasing competition between economic blocks, marked by a performance business highly integrated with strategic collective plans (IBRAVIN, 2010). That is, the geographical proximity facilitates the development of cooperative relationship, based on existing trust that is intensified between

different actors and agents. Such relations are important to explore competitive advantages that are created and disseminated within the network (Fersterseifer, 2007).

Relation to existing theories

This research uses the concept of social capital to explore the perceptions of a group of employees group about commitment. Despite the difficulties of measuring the concept – in part, due to the fact that social capital is defined by its function (Coleman, 1988) much attention is gained in the sociological and development literature recently. It refers to the features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit (Putnam, 2000). It may be hypothesized that high levels of social capital in a determined group – measured by social cohesion, cooperation, coordination – were related with high levels of individuals' commitment within organization.

The social capital raised in the external environment of an organization, may be linked to some of the relationships that companies maintain in order to create competitive advantages not only based on their own competences, but also on the competences of other organizations or institutions located in the same cluster. In short, social capital can be considered the sum of the resources and capabilities that belong to a network in which companies aim to compete successfully (Marti, 2004).

The development of complex collaborative actions among firms is enabled through the social capital, since the formation of a collaborative network will be influenced by the degree to which people in a business community share norms and values and are able to subordinate individual interests to collective interests (Balestrin and Verschoore, 2008).

Considering this point of view, it is also important to highlight some of the major advantages and goals for creating or linking a company to a collaborative network (Balestrin and Verschoore, 2008):

- a) generation of economies of scale and market power, ie, 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 are 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.

The social capital is also an organizational feature. 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).

Despite this view, we decided to investigate the social capital, according to their structural, cognitive, and relational dimensions (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, p. 243). The interaction among the agents of the network is what gives shape to 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 visions, interpretations and systems of meanings, such as language, codes and narratives (Nahapiet and Ghoshal, 1998).

The main reason that allows us relate social capital and organizational commitment is that both concepts consist of some aspect of a social structure and they facilitate certain actions of individuals, making possible certain ends that are attainable because of coordinated actions into groups. Thus, the development of social capital through relationships of trust, communication and shared norms leads to reduction in transaction costs of business and this process is enhanced by the increase in organizational commitment.

The literature shows two basic components of organizational social capital: the associativity and confidence. The associativity is defined as the willingness and the ability of members of an organization to subordinate their individual goals in favor of collective goals. The second factor, the trust, is shown as a basic element of the success of collective action - it is essential that people who work together achieve the desired results (Leana and Buren, 1999).

In this sense, organizational commitment refers to identification with the organization, through the belief and acceptance of company's values and goals and through the desire to remain a member of the company making efforts for the benefit of the organization (Mowday et al., 1986). In addition, commitment has three main features: strong belief in the goals and values of the organization, willingness to make an extra effort on behalf of the company and a great desire to join and belong to the company (Fiorito, et al., 2007).

The most accepted view on organizational commitment refers to the psychological state that characterizes the relationship among employees and the company that implies the decision to continue being part of the company. In this study, we consider three components of organizational commitment: (a) affective commitment: related to employees' emotional involvement and their identification with the organization, (b) continuance commitment: related to perceived costs of leaving the organization; (c) normative commitment: related to the feeling of obligation to remain in the organization (Meyer and Allen, 1991).

Research method

This study is based on the survey method, using a questionnaire as a technique for data collection. We used the stratified sampling considering a sampling error of 5% and a reliability of 95%. The sample was non-probabilistic, which was chosen for convenience.

The survey was applied to 200 employees from companies that are members of this network (being 172 employees from companies associated to APROVALE and 28 from APROBE-LO). We aimed to correlate the amount of organizational commitment and the social capital present in the local context.

In order to measure social capital we used a 4-item scale from Onyx and Bullen (2000) which was validated in Brazil by Sarate and Macke (2007).

The choice of this referential work was due to the similarity of some features of the context, previously discussed by the authors, with the reality of companies to be surveyed. The geographical proximity between industries and their integration

and relevance in local communities reinforce this choice.

For the organizational commitment analysis, we used the 7-item scale developed by Meyer and Allen (1991), which was translated and applied in Brazil by Rego et al. (2007). Before the formal survey, we ran a pre-test with fifteen employees in chosen enterprises. We used the software SPSS (Statistical Package of Social Science), version 17.0, to analyze the data. The statistics chosen were the descriptive, the factorial and the correlation analysis.

The descriptive analysis allowed identifying many important characteristics of the respondents:

- a) 50.8% of the sample were men and 49.2% for women;
- b) in relation to age, 57.4% are up to 35 years old;
- c) education level: elementary education (18.8%), completed high school (20.9%) and undergraduate (23.6%);
- d) 50.5% have lived in the same neighborhood for over 15 years;
- e) 72.4% have lived in their own homes;
- f) 34.2% of respondents live with spouse or husband and children; only 7.4% live alone;
- g) 34.7% have children under 18;
- h) 30.9% of the sample have working ties with the company for less than a year. However, 38.2% of respondents in the organization have served the company for more than 6 years;
- i) 53.2% of respondents work in the production area;
- j) in relation to income, 37.7% of respondents earn salaries between R\$ 501.00 and R\$ 999.00 (about US\$ 300 to US\$ 600), while 27.2% have salaries between R\$ 1,000.00 and R\$ 1,499 (about US\$ 600 to US\$ 900);
- l) although the organizations surveyed are family businesses, only 12% of employees have kinship with the founder of the company.

After verifying the main characteristics of the respondents, we analyze the social capital and organizational commitment and its relationship, as we will describe below.

Results and discussions

The original study conducted by Onyx and Bullen (2000), results in eight dimensions of social capital, which are: participation in the local community, proactiveness in a social context, feelings of trust and safety, neighborhood ties, family ties and friendship, tolerance and adversity, life values and relations with job (Onyx and Bullen, 2000). Similar findings can be observed in Sarate and Macke (2007).

However, in the present study the factor analysis revealed three factors for the social capital explanation. Compared to the theoretical background, we found that these factors had a close similarity with the social capital dimensions (Nahapiet and Ghoshal, 1998).

Thus, the three factors – structural, relational and cognitive – explain 61.25 % of the organizational social capital within the network. The Cronbach's Alpha for this scale was 0.882, which represents a very good result for an exploratory study. Figure 1 shows the elements and Cronbach's Alpha for each factor.

The structural dimension of social capital is linked to the network of relationships and the social system as the whole. This dimension examines the presence of ties between the actors and the network configuration and their patterns of connection. These characteristics are verified through some variables such as density, connectivity and hierarchy.

In this dimension, the variables stand out were "become part of a project in the community", "help local groups as a voluntary" and "help to organize a local service." Considering that the structural dimension addresses the link between the actors, it points out the collective action and cooperation as common elements of this factor. It is emphasized that cooperation and collective action refer to the ability of people to work together in order to solve common problems.

The second factor that emerged from the factor analysis was the relational dimension. The relational dimension of social capital brings into account the goods that are created and leveraged through relationships. Moreover, this dimension includes attributes such as trust, norms, sanctions, obligations, expectations and identification.

In this factor we found several variables related to workplace like: "consider work colleagues as friends"; "feel part of a work team", "feel part of the community where you work", "spontaneously help colleagues" and "take initiative in the workplace". Furthermore, the variable "feel valued by society" also had a strong correlation with the relational social capital factor.

It is necessary to highlight the significance of the "work" within the research context. We adopt the paradigm that the meaning of work can be considered as subjective, historical and dynamic cognition, characterized by multiple facets that are articulated in different ways (Sarate and Macke, 2007).

In the context of this research, we can highlight the historical conditions embedded in the community and its influence on the meaning of work. The region under study, settled by Italian immigrants, lives a kind of "cult of work", which can be under-

Structural Dimension 0.859*	Relational Dimension 0.752*	Cognitive Dimension 0.675*
Network configuration	Acceptance and prestige	Access to information
Cooperation	Trust	Codes
Ties	Social identity	Culture
Connectivity patterns	Interactions	Shared language
Reciprocity	Norms	Shared narratives
	Obligations and expectations	Systems of meaning
	Participation	Values
	Sociability	

* Cronbach's Alpha.

Figure 1. Elements of Each Social Capital Dimensions and Cronbach's Alphas.

stood as a glorification for what is done; like cultural heritage of immigrants, that think that everything can be achieved through hard work. The obstinacy, combined with the entrepreneurial characteristic, became the unmistakable mark of immigrants chosen by their descendants (Sarate and Macke, 2007).

The fundamental human desire for recognition boosted the relationships. While people work for organizations to provide their individual needs, the workplace brings them into a wider social world. This connection is not just a way of getting paid, but is a major purpose of human life itself. The satisfaction of the fact that someone has links to others in the workplace is related with a fundamental human desire for recognition. In fact, this desire is so deep and fundamental that it is a major driver of the whole process of human history (Fukuyama, 1999).

Finally, the third factor - cognitive dimension of social capital - refers to resources that represent understandings, interpretations and systems of shared meaning among the actors. These features are enhanced by factors such as language, codes and shared narratives. Although this dimension is little explored in studies on social capital, it presents essential elements for the formation and maintenance of this construct (Nahapiet and Ghoshal, 1998).

Considering the variables within this third dimension, we highlight the importance of the conditions of people to access information for the maintenance of social capital. Thus, the variables "find friends or acquaintances"; "get access to information to make important decisions"; "used the phone frequently to talk to your friends" and "go out of the local community to visit family", can illustrate this idea.

These variables are manifested in the form of narratives and shared language. Therefore, the shared language facilitates the ability to reach other people and influence the categories of perception, providing a tool to interpret the environment. This tool of interpretation, in turn, can be accessed to bring people of different lifestyles and cultures together.

We found that the structural dimension of social capital, composed of elements such as network configuration, cooperation, ties between the actors, patterns of connectivity and reciprocity, increases significantly in groups of older respondents, more time living in the same neighborhood, more time in the company and higher income.

These results differ from the statements described by Onyx and Bullen (2000). The authors emphasize that social capital can manifest itself equally between rich and poor, men and women regardless of age or educational level. Therefore, for the authors, variations in this construct would not be correlated with demographic variables such as age, gender, and levels of

employment, wage or qualification.

However, considering that the structural dimension in our study grouped mainly variables related to participation in the local community, we can conclude that the increase in this local participation is linked to a greater maturity (age variable), higher levels of responsibility (higher tenure and income) and increased time living in the community. We also noticed that individuals who are members of the founding family of the company had higher levels of structural and relational social capital dimensions.

Considering the structural dimension, this result may be linked to the building process of the ties between the actors, since family members will present characteristics related to the strong ties of social capital.

Fukuyama (1999) states that the family is the basic element in society and an important source of social capital. Moreover, the chances of cooperation and reciprocity (structural social capital) within kin groups are prominent and this feature can be enhanced by biological issues. In other words, strong ties can facilitate cooperation and reciprocity among members and this can be outspread to family businesses.

In the relational dimension, the higher levels presented by individuals who are members of the founding family may be linked to the meaning of work for these individuals passed from generation to generation. Moreover, the relational social capital comprises elements such as social identification, acceptance and trust, and these are present in the family context, justifying the higher average of this dimension.

Finally, we observed that no significant differences were found when comparing the characteristics of the groups with the cognitive dimension of social capital. This result will be examined in a future study.

Similarly, in order to examine the internal consistency of organizational commitment variables we measure the Cronbach's alpha for the eleven variables, resulting in a score of 0.777. As the social capital construct we had few cases of missing values.

Factor analysis brought out the three factors - affective, normative and continuance (or instrumental) - of original research (Rego and Cunha, 2007), validated in Brazil and Portugal. In order to verify the consistency of each factor, we calculated the values for the Cronbach's Alpha show in Figure 2. The explained variance for the construct resulted in 70.84%.

Like the original study, the variables related to the affective commitment had the highest averages. This dimension of organizational commitment is linked to the worker's identification with the goals and values of the company and the desire to remain an active member of the organization.

Continuance Commitment 0.887*	Affective Commitment 0.811*	Normative Commitment 0.724*
Costs of leaving the company	Feel part of organization	Believe in organizational loyalty
Afraid of leaving	Sense of belonging	Sense of moral obligation
Few options to consider in leaving the company	Make career in the organization	Willingness to stay in the company
Serious consequences in leaving the company	Personal meaning	Disgust jumping form one organization to another
Life disruption	Assume organization's problems	

* Cronbach's Alpha.

Figure 2. Elements of Each Organizational Commitment Dimensions and Cronbach's Alphas.

The greater representation of the affective dimension can be attributed to characteristics of the local context. Initially, we highlighted the representativeness of the variable with the highest average: "I'm proud to tell other people that I'm part of this organization". In this sense, we can relate the fact to the development and recognition of the region. In addition, the agro-industrial activity in Southern Brazil is extremely important, since the Serra Gaúcha region is nationally and internationally known.

The highlights of the variable "I feel like 'part of the family' in my organization" can be explained by the fact that the companies surveyed are mostly family businesses, influencing management style.

The main characteristics of family businesses are the enhancement of mutual trust, the emotional ties extremely strong and behavior influenced, the preference of time in the company instead of efficacy or competence, the requirement of dedication and the expectation of loyalty (Bernhoeft, 1989). These features can enhance the feeling of organization's belonging, justifying the results found in the research.

Finally, when analyzing the continuance and normative commitments we found that they obtained lower scores other than the affective dimension. Previous studies (Rego and Cunha, 2007), found that affective commitment has the tendency to associate positively with the normative and negatively with the continuance.

This explains the fact that variables related to normative commitment present averages between 4.06 and 5.00 (considering the scale from 1 to 7) and the variables related to continuance commitment to acquired the lowest scores (between 2.66 and 3.46). This is expected because the continuance commitment is related to the costs that the individual may have leaving the organization while affective commitment is linked to identification and emotional involvement with the company. These findings are aligned to research on intra-organizational social capital and reveal that employees may execute these special tasks as a way of reciprocity to the support and trust that has been placed on them.

In this study, as an initial step of observation, we ran analysis of variance, which showed significant differences in variables related to educational level, age, tenure and area of expertise, when linked to continuance (instrumental) commitment. In this sense, considering that the instrumental commitment is due to losses that the individuals may have leaving the company and delay in future employability, we can understand these results as follow.

Initially, we noticed that the lower the educational level, the fewer opportunities in the work market. Another variable that influenced the chances of employability is the age of workers. A study conducted by Camarano (2001) in the elderly population in the Brazilian work market, showed that educational level and age had significant relation for employability. In this sense, in-

creasing age may have a negative effect on employability, while higher levels of education have a positive effect.

Also, it is important to note that, in general, workers in the productive areas of the companies have less educational level in comparison to employees in administrative areas. This might explain the higher average in the instrumental commitment considering the workers in production areas.

In contrast, workers with higher tenure have higher averages of instrumental commitment due to a feeling of job stability. On the other hand, employees who remain tied for long periods in the same organization may be limited in terms of skills development, which can influence their employability, and, consequently, in the organizational commitment.

Another result that emerged is that the workers that are members of the founding family have higher average of normative commitment. This result is justified, since the normative commitment refers to feelings of obligation to stay in business, and this feeling extends to people who are part of the family. Thus, the obligation and loyalty that are present in the family are reflected in the organizational environment.

The preceding explanations suggest that intra-organizational social capital and organizational commitment are related concepts, as Watson and Papamarcos (2002) also implies. Both concepts focus on valuable social relationships in organizations. The correlation between commitment and social capital dimensions are shown in Table 1 and also illustrated in Figure 3.

The Pearson correlation analysis seeks to measure the linear association between two metric variables. The correlation coefficients vary from -1.0 to 1.0, whereas higher the coefficient the stronger the level of association. These coefficients can be positive or negative; this will depend on the direction of the relationship between variables, whether directly or inversely proportional (Hair, Babin, Money and Samoul, 2003).

We can conclude that the continuance commitment has no significant correlation with any social capital dimensions. A possible explanation for this result is that the individuals' willingness to contribute to organizational goals can be influenced by the nature of psychological ties (social capital) that links the employees to the organization. Thus, it is unlikely to have high work performance when people want to belong to the organization (normative commitment and effective) rather than when they are required or when they need to fit into organization (continuance commitment).

The results also suggest that the relational social capital present in the region enhances organizational commitment development, specially affective and normative dimensions. By integrating research on social capital and commitment, we show that organizational commitment can be considered as one of the most proximal organizational social capital outcomes.

In sum, we verified the existence of high levels of social capital, especially regarding the structural and cognitive dimensions. In this sense, the variables associated with the workplace

Table 1. Correlations among social capital and commitment dimensions.

Factors / Dimensions	Structural Social Capital	Relational Social Capital	Cognitive Social Capital
Continuance Commitment	- 0.047	0.026	0.004
Affective Commitment	0.360*	0.425*	0.361*
Normative Commitment	0.365*	0.407*	0.303*

* significant correlation at level 0.01

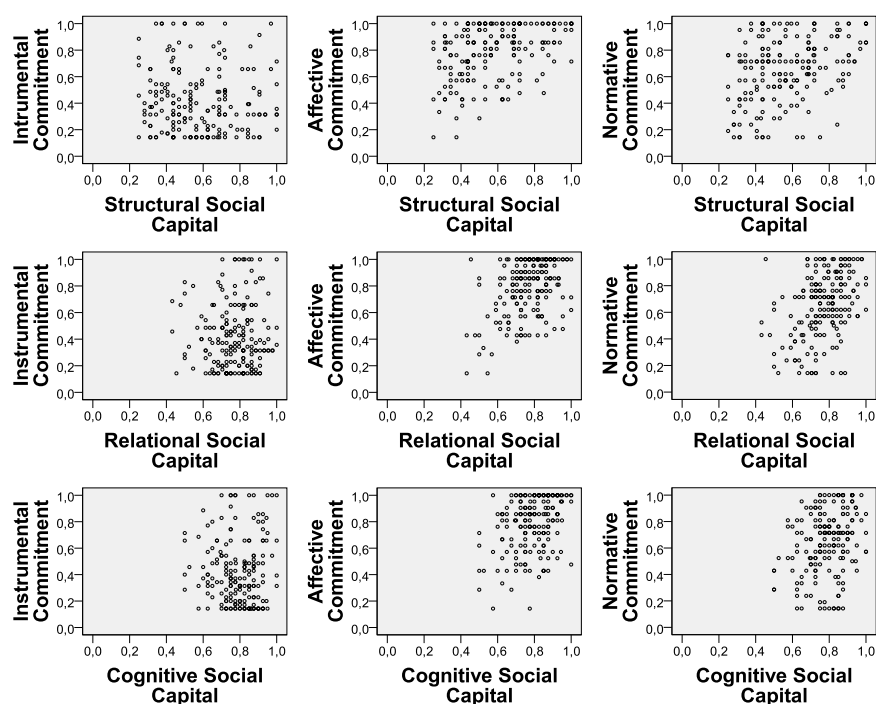


Figure 3. Correlations among organizational social capital and organizational commitment.

(relational dimension) have significant representation in the research environment, especially with in regard to the meaning of work for the respondents.

Answering the objective of identifying the relationship between social capital and organizational commitment, we found that the dimensions of instrumental, relational and cognitive social capital have a positive correlation with affective and normative dimensions of organizational commitment through the following characteristics:

- structural dimension of social capital and organizational commitment: elements such as reciprocity and cooperation have influenced the manifestations of the commitment;
- relational dimension of social capital and organizational commitment: elements such as trust, participation and shared norms have influenced the manifestations of the commitment;
- the cognitive dimension of social capital and organizational commitment: elements such as communication and values have influenced the organizational commitment.

In the comparison of the main characteristics of respondents with levels of social capital and organizational commitment, significant differences were identified.

For example, the analysis of the structural dimension of social capital, composed of elements such as network configuration, cooperation, social ties, patterns of connectivity and reciprocity, showed that it significantly increases in groups of respondents with age, time living in the same neighborhood, time in the company and higher income. This dimension consists mainly of variables related to participation in the local community. In this sense, we can conclude that the increase in this local participation is linked to a greater maturity, levels of responsibility in the company and time to bond with the community. In addition, individuals who are members of the founder's family had higher levels of social capital (especially in structural and relational dimensions).

Final considerations

Considering the findings described and the theoretical background we defend three elements of context analysis that relates social capital and organizational commitment: identity building, power relations, and network performance.

The "identity building" consists of the several groups of which the agent (company) takes part. Therefore it is necessary to understand how a group objectively exists: through the establishment of relations between its members, that is, by their actions – it is through the action that someone becomes something. The key issue is that identity offers a collective view of its activities and its criteria for action.

We can see the identity building in the Brazilian Wine Industry Cluster stimulating the formation of a collaborative network through the culture and the history of Italian immigration. The immigration brought to light the culture of mutual assistance and cooperation for the development and started the colonization process in the last century (the Italian immigration began in 1875).

The cultivation of vines and the wine production are trademarks of immigration: the Serra Gaúcha wine is not just a business, it is a tradition brought by Italian immigrants which has been going through generations.

The "power relations" are the basis for the analysis of the structure of social space. This structure is not immutable; it represents a state of social positions immersed in a dynamic of preservation and change.

The companies associated with APROBELO (formed mainly by smaller wineries) have more need to stay together specially in structural terms. The creation of a water waste treatment plant used by all associated wineries is an example of this need. Moreover, the joint use of equipments, the adoption of packaging and other materials (with the aim of reducing costs) and the project of building a headquarter for the association (including

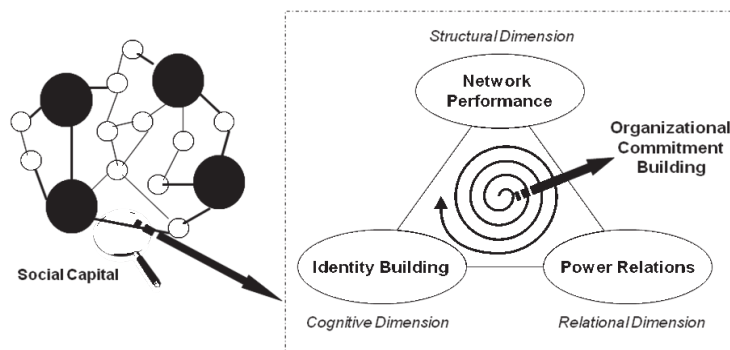


Figure 4. Understanding social capital and organizational commitment in collaborative networks.

a complete structure for the manufacture of wines and sparkling wines in a cooperative system) reinforce this finding.

Considering these characteristics we realized that the more symmetric the relations among the network members, the more is the presence of social capital elements such as cooperation and reciprocity (structural dimension), trust and participation (relational dimension). Therefore the symmetric relations benefit the social capital and commitment building.

The “network performance” considers collaborative network indicators, such as the organization collective performance, including the sustainability of each partner. It is necessary to understand different business processes and trust, to ensure the systemic use of this trust and to maximize the potential of opportunities.

The relationships into the APROVALE an APROBELO networks allow their members to access new management concepts, methods, and styles, developing a learning horizontal cooperation process.

This characteristic of collective development of the business can be understood as the responsibility of the members to bring new business opportunities for the network. In this context, network performance can be evaluated by the learning in the exploitation of market opportunities and overcome obstacles through a combination of virtuous capacities of each partner and also through the search for new knowledge outside the network. In order to summarize our findings we illustrate these ideas in Figure 4.

In short, social capital has provided inexhaustible sources since the beginning of its use, but may decrease and become rare if not used – because social capital is within the relationships. Therefore, the development of social capital is affected by factors that structure the development of social relations.

Existing literature highlights some consequences of social ex-

change such as social capital and commitment among agents. While each of these mechanisms has been studied individually, their relationship has rarely been examined in full. The purpose of this paper is to contribute to the literature on organizational social capital and organizational commitment in collaborative networks context. In addition to contributing to the literature, we hope to provide an improved understanding of the institutional determinants of social capital.

The importance of assessing social capital in collaborative networks can be summarized as: (a) high level of social trust and strong reciprocity norms, reduce the transaction costs; (b) social networks attenuate the risks, allowing that their members engage more in innovations; (c) social networks facilitate the fast information dissemination and with this, they reduce the asymmetries; and (d) social networks allow that its members solve their collective problems easily.

Despite these findings, we know that there is much more to research in social capital. One of the future purposes of our research group is to study how deep the goals, strategies, and practices of networks are influenced by powerful social actors operating both within and outside network boundaries.

Future cross-country research that employs firm-level and case study methodologies will also promote a better understanding of the social capital elements most related to networks competitiveness.

Acknowledgements

This work is being supported by the University of Caxias do Sul (Universidade de Caxias do Sul - UCS), and the National Counsel for Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq).

References

- APROBELO (2009), “Associação dos Produtores de Vinho de Monte Belo do Sul”. Available http://www.sitedovinhobrasileiro.com.br/folha.php?pag=mostra_regiao.php&num=VMB
- APROVALE (2009), “Associação dos Produtores de Vinho do Vale dos Vinhedos”. Available <http://www.valedosvinhedos.com.br/>
- Azpiazu, D. and Basualdo, E. (2003), “Estudios Sectoriales: Industria Vitivinícola, Prestamo BID 925/OC-AR”. Available <http://www.eclac.org/argentina/noticias/paginas/8/12238/Informe336IndVitiv.pdf>
- Balestrin, A. and Verschoore, J. (2008), Redes de cooperação empresarial: estratégias de gestão na nova economia. Bookman, Porto Alegre.
- Bernhoeft, R. (1989), Empresa familiar: sucessão profissionalizada ou sobrevivência comprometida. Nobel, São Paulo.
- Camarano, A. A. (2001), O idoso brasileiro no mercado de trabalho. IPEA, Rio de Janeiro.
- Coleman, J.S. (1988), “Capital in the creation of Human Capital”, American Journal of Sociology, Vol. 94, pp. 95 - 120.
- Embrapa Uva e Vinho (2010), “Dados da Vitivinicultura”. Available www.embrapa.br/english.

- Fersterseifer, J.E. (2007), "The Emerging Brazilian Wine Industry", *International Journal of Wine Business Research*, Vol. 19 N. 3, pp. 187 – 206.
- Fiorito, J., Bozeman, D.P., Young, A. and Meurs, J.A. (2007), "Organizational commitment, human resource practices, and organizational characteristics", *Journal of Managerial Issues*, Vol. 19 N. 2, pp. 186 – 207.
- Food and Agriculture Organization (2008), "Statistics for a better World". Available www.fao.org/corp/statistics/es/
- Fukuyama, F. (1999), *The great disruption: human nature and the reconstitution of social order*. Profile Books, London.
- Hair, J.F., Babin, B., Money, A.H. and Samoul, P. (2003), *Essentials of Business Research Methods*. Leyh Publishing, LLC.
- IBRAVIN (2010), *Cadastro Vinícola, IBRAVIN/MAPA/SAA-RS*. Brazilian Wine Institute, Bento Gonçalves.
- Leana, C.R. and Van Buren, H.J. (1999), "Organizational social capital and employment practices", *Academy of Management Review*, Vol. 24 N. 3, pp. 538 - 555.
- Macke, J., Sarate, J.A.R and Vallejos, R.V. (2010), "Collective competence and social capital: a proposal of a model for collaborative network analysis", *Journal of Systemics, Cybernetics and Informatics*, Vol. 8 N. 3, pp. 18-23.
- Marti, J.M.V. (2004), "Social capital benchmarking system: profiting from social capital when building network organizations", *Journal of Intellectual Capital*, Vol. 5 N. 3, pp. 426 – 442.
- Meyer, J.P. and Allen, N.J. (1991), "A three-component conceptualization of organizational commitment", *Human Resources Management Review*, Vol. 1 N. 1, pp. 61 - 89.
- Mowday, R. T., Porter, L.W. and Steers, R.M. (1986), *Employee-organizational linkages: the psychology of commitment, absenteeism, and turnover*. Academic Press, New York.
- Nahapiet, J. and Ghoshal, S. (1998), "Social capital, intellectual capital and the organizational advantage", *Academy of Management Review*, Vol. 23 N. 2, pp. 242 - 266.
- Onyx, J. and Bullen, P. (2000), "Measuring Social Capital in Five Communities", *The Journal of Applied Behavioral Science*, Vol. 36 N. 1, pp. 23 – 42.
- Putnam, R.D. (2000), *Bowling Alone: the collapse and revival of the American community*. Simon & Schuster Paperbacks, New York.
- Putnam, R.D., Leonardi, R. and Nanetti, R.Y. (1993), *Making Democracy Work: civic traditions in modern Italy*. Princeton University Press, Princeton.
- Rego, A., Cunha, M.P. and Souto, S. (2007), "Espiritualidade nas organizações e comprometimento organizacional", *RAE eletrônica*, Vol. 6 N. 2.
- Sarate, J.A. and Macke, J. (2007), "Fatores Explicativos do capital Social em uma cidade da Serra Gaúcha", In 31th Anais ANPAD, Rio de Janeiro.
- Visão (2005), *Relatório de Competitividade Sistêmica. Programa de Desenvolvimento Estratégico do Setor Vitivinícola do RS*.
- Watson, G.W. and Papamarcos, S. (2002), "Social capital and organizational commitment", *Journal of Business and Psychology*, Vol. 16 N. 4, pp. 537 – 552.
- Wines of Brazil (2010), "Wine Regions". Available <http://www.winesfrombrazil.com/index.php?lang=en>
- Yin, R.K. (1994), *Case study research: Design and methods*. Sage Publications, Thousand Oaks, CA.

Authors

Janaina Macke holds PhD in Business Administration. Researcher and professor of University of Caxias do Sul. Principal researcher of the Organizational Social Theory Group, associated with Brazilian National Counsel for Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq). Contact: jmacke@terra.com.br Universidade de Caxias do Sul (UCS) Rua Francisco Getulio Vargas, 1130 – Bairro Petrópolis 95070-560 - Caxias do Sul – RS- Brasil

Denise Genari holds master in Business Administration by University of Caxias do Sul. Member of the Organizational Social Theory Group, associated with Brazilian National Counsel for Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq). Contact: denisegenari@hotmail.com

Kadigia Faccin holds master in Business Administration by University of Caxias do Sul. Member of the Organizational Social Theory Group, associated with Brazilian National Counsel for Scientific and Technological Development (Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq). Contact: kadigia@msn.com

The Social Theory Research Group has been developing research outputs in the domains of social capital, corporative social responsibility and collaborative networks. The research group consists of 7 professors and 11 master business students. The researches have been published in various international journal and congresses.