

Trust and Commitment Relations as Basis to Structure and Governance of Networks

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Abstract

We investigate the interface between the social categories trust and commitment as organizing axes of the governance and structure attributes of networks, having as objects of study the grape and banana production networks at the north of Paraná State, Brazil. There are indications that the networks studied are at an initial stage of organization, with their structures and governances not yet well established. The paper is justified by the theoretical importance of social categories as organizers of networks structure and governance, as well as by the opportunity to examine two network developments in the region. As theoretical foundations we have some principles of the network society perspective, and the social theory of networks. A predominantly qualitative and descriptive research was conducted, using interview techniques and secondary data. The results indicated there is an interface between the trust and commitment along with network governance, while the interface with structure was not clearly established. The contributions were both methodological and theoretical. The former regards proposing the integration of the four categories, a subject not yet found in the Brazilian Literature; and the latter suggests the operationalization of the two social categories, which was not found in Brazilian Literature either.

Introduction

The aim of this paper is to analyze the structure and governance attributes of networks, having as organizing axes the social categories trust and commitment social categories, by studying the agribusiness networks. To exemplify the discussion we presented an analysis on the grape and banana production networks in the north of Paraná State, Brazil.

Reviews about networks (Oliver, Ebers, 1998; Giglio; Kawsnicka, 2006; Provan *et al.*, 2007) revealed some theories that can be grouped into three main paradigms according to their principles: (A) Rational-economic, referring to Cost factors and Resource dependence (Williamson, 1981; Gulati, 1998); (B) Socio-technical, regarding social aspects as basis for decision making (Granovetter, 1985; Uzzi, 1997); and (C) The network society, stating that business networks are manifestations of a society organized in networks (Nohria, Eccles, 1992; Castells, 1999). This paper makes use of some complementary statements from the Socio-technical and the Network society approaches, considering trust and commitment as important and necessary points to establish networks (Larson, 1992; Grandori, Soda, 1995; Gulati, 1999; Ebers, Jarillo, 1998; Granovetter, 2007).

The guiding proposition is that the configuration of a network, in the sense of its structure and governance is intrinsically related to the presence of trust and commitment. Preliminary data collection suggested that the grape and banana networks are at different but initial stages of their structure and governance organization, as well as an initial building of trust and commitment among the respective actors.

The importance of this work is related to the shortage of studies on the interface involving social ties, network structure, and governance nature. Methodologically the effort is justified because of the operationalization of the concepts of trust and commitment related to structure and governance in a data collection method.

Theoretical review

We performed a Brazilian and an international review on social variables shaping networks, respectively through Scielo and Proquest databases, using the following key entries: *network, trust, commitment, structure, governance, agricultural and agribusinesses*. When isolated each of these words conducted to thousands of references, while the combination of two words led to tens; and finally, combining three or four words led to no reference. Thus, we found no single article investigating the four categories. The main trend found was about structure, with representations of networks in the social space related to trust and commitment (Lefèbvre, 1991; Castells, 2000; Latour, 2005). The articles about governance followed an analogous pattern, but were less frequent. And the few articles we found involving the conjunction of these two trends created what we called *network states*.

Theoretical base for the networks state concept

Reviews on network concepts (Tichy, Tushman, Fombrun, 1979; Nohria, Eccles, 1992; Jarillo; Ricart, 1988; Miles; Snow, 1992; Oliver; Ebers, 1998; Rusbult, Van Lange, 2003; Giglio; Kawsnicka, 2006; Provan *et al.*, 2007) lead to factors considered essential in the network phenomenon. One of them is interdependence, meaning the need of collective actions, with trust and commitment as important and necessary categories for network setup.

According to Castells (1999) there is a new network social organization, different from the previous one consisting of small groups. This statement is supported by Nohria and Eccles (1992), to whom the networks are the current mode to describe and investigate organizations. Granovetter (1985), Uzzi (1997), Nohria and Eccles (1992) assert that technical and commercial actions are inextricably linked to social relations networks. The more the actors are immersed in networks – that is, committed to collective actions and trust relations – the greater the network equilibrium is, as for the role definitions and expected behavior. This assertive is reaffirmed by several authors (Montgomery, 1991; Larson, 1992; Gulati, 1998; Gulati, Gargiulo, 1999; Halinen, Salmi, Avila, 1999; Moody, White, 2003; Giglio, Rimoli, Silva, 2008; Wegner *et al.*, 2011) and supports the following principles, which were adopted in this work.

(I) A new kind of society, founded in networks, is under construction, having interdependence as its main axis;

(II) All organizations are in networks, whether their actors develop their liaisons or not;

(III) Networks are built on social basis; and

(IV) Actors are immersed in networks and this express their level of commitment and trust in the collective objectives as well as in the behavior of the other actors, which is conducive to relatively stable roles, that is, there is a defined structure.

The trust, commitment, structure and governance interface framework and its operational concepts.

From the theoretical base described we built the interface framework including the four categories. Trust is defined as an actor putting himself on another one's dependence, without caring for safeguards or rules (Morgan, Hunt, 1994). Commitment is seen as the other side of trust, that is, someone helping that person who trusted him without taking

personal advantage (Grandori, Soda, 1995). Structure is a set of strong, frequent and repetitive relations with different contents (Burt, 2004; Halinen, Salmi, Havila, 1999). And governance is a set of rules and incentives created to control people's behaviors and encourage them to remain in the group (Jones, Hesterly, Borgatti, 1997). We also formulated indicators for each category to direct the applied survey. As an example, an indicator for commitment was 'to help other people without getting personal benefits' and the respective questionnaire statement was: *I always try to help others in what they need, even if I don't get anything back from it.*

Material and Methods

The paper is descriptive and predominantly qualitative because the major part of its data is not reducible to numbers. (McDaniel, Gates, 2003). From our early contacts, we decided to collect data from the agribusiness sector, especially at the grapes and banana businesses in the North of Paraná state, Brazil. We collected secondary data from libraries, syndicates, town hall offices and from local newspapers and documents. As for primary data we interviewed group leaders, support organization technicians, township development secretaries, and finally, parts of each business group using Likert scale type of sentences in the questionnaires. Finally we undertook content analysis (Bardin, 1977) using thematic analysis technique.

Results and Discussion

In this section we present relevant information that emerged from analyzing secondary and primary data altogether.

Grape producers network in Bandeirantes town – Paraná, Brazil

The grape growers from Bandeirantes town has been developed by 105 grape producers begun 1992 by only 12 of them with a document privileging transparency, in the sense of commitment. This activity originated an association named Adecot and later Triangle group emerged from it, which is now the network operational center. Currently Adecot is composed by 37 members. Informal interviews with local leaders indicated that opportunist behaviors occurred, but they ended up bringing a strong determination for building trust and commitment among actors. Data from 20 people who answered the questionnaire are displayed at Chart 1 below. The results showed that strong signals on the four mentioned categories are present (all of them above 60%), supporting the guiding proposition

Chart 1: Answers from grape producers showing % of concordance to Likert sentences

	commitment	trust	structure	governance
Sum	110/140 (78%)	141/180 (78%)	52/80 (65%)	116/180 (64%)

Source: Authors

Banana producers network in Andirá – Paraná State, Brazil

Banana business also initiated in 1992 from an EMATER (Rural Technical Assistance Institute of Paraná) proposal seeking local producers in search of new sources of incomes. In the beginning, 50 producers from Andirá town (PR) were put together. The group worked informally for 13 years until the foundation of APBANA (Banana producers association of

Andirá and Region) in 2008. Currently the group has 16 members. Informal interviews with local leaders indicated that the business was powered more by local government actions than by the producers' initiative. We see this as one of the reasons why the group has grown only some years after the first harvest results. Differently from the grape growers, in this group soon emerged the figure of the intermediary that is also a producer and profits from both sources. Data from 10 people who answered the questionnaire are displayed at Chart 2. The results showed strong trust, commitment and governance signals (above 70%), whereas the structure signals were weaker (50%).

Chart 2: Answers from banana producers showing % of concordance to Likert sentences

	commitment	trust	structure	governance
Sum	56/70 (80%)	75/90 (83%)	20/40 (50%)	64/90 (71%)

Source: Authors

Considering the data gathered at both settings, we can assert that the guiding proposition was more supported by the grape business network than the banana producers. Nevertheless, the following conclusions refer to the grape as well as to the banana networks.

(A) Data sustained the guiding proposition on the presence of trust, commitment, structure and governance categories at both networks.

(B) Percentages above 60% are clearly set at all categories for the grape producers' network, while for the banana network the relation with structure wasn't clearly determined.

(C) Using the theoretical base affirmatives we concluded that both networks have a distinct development pathway, culminating in two different states of networks. There is more participation in group meetings, as well as more information exchange and mutual help, among actors in the grape producer's network than it is in the banana network. These results lead to higher organization levels involving formal and informal governance, and provide a higher equilibrium among the grape producers network. Also, the existence of an internal subgroup with decision power is a characteristic of the grape producer network. In the banana network there is less participation from the actors in meetings, and weaker signals of mutual information and help exchange. In addition, we could notice indications of dominance of an isolated competition culture, considering the intermediary presences among producers, competing for the same network profits.

(D) Indicators proposed and the related data collection instruments demonstrated applicability. Still, the data analysis showed that the questionnaire can be improved to become a valid investigation instrument of the proposed interfaces.

Conclusion

The paper achieved its objective in answering topics about the interfaces between the social relations of trust and commitment, and the presence of structure and governance as categories of network as ways for organizing businesses. Data were collected from two networks in the North region of Paraná State: grape and banana producers.

The affirmative about the groups presenting distinct states of network organization was supported. The grape business has a long history of social involvement between participants, either of complete trust (such as having the entire production without setting prices in anticipation), or opportunism (such as establishing secondary business without letting the group know). These events resulted in a strong cohesion among actors and equally strong social control. By contrast, the banana business has a history of local governmental entities participation and as a consequence, collective goals have hardly existed; thus

cohesion among participants was weaker. These facts may be related to the lowest frequency of structure presence (50% of agreement), as compared to the grape producers network (65%).

The theoretical framework was founded in the network society (Castells, 1999; Nohria, Eccles, 1992) and in the socio-technical paradigm of networks (Granovetter, 1985, Grandori, Soda, 1995). It was considered able to explain the distinct organizations from both groups, besides giving support to the research instrument construction. Applying these premises about network existence we can affirm that the state of grape producer's network presents certain stability and equilibrium, with defined structure, governance and flows that balance technical, commercial, and social contents. By contrast, the banana producers' network state is characterized by lesser balance and stability.

This work contributes theoretically by indicating interfaces between categories that are normally investigated separately. Even though Granovetter (1985) and Nohria and Eccles (1992) have affirmed that all organizations are in networks, and that there is always a social background for any technical behavior; the findings of this work have made little advance in this matter. One of the possible reasons is the difficulty to finding valid and applicable instruments. In this sense, a methodological contribution offered by this work is the use of a questionnaire generated from indicators able to distinguish the state of both networks studied. As was declared previously, the operationalization of these categories was not found in Brazilian Literature. Nevertheless, the fact that there was theoretical and methodological advances demands the continuity of research to improve the proposed contributions.

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