

Member Participation and Relational Contracts in Agribusiness Co-operatives in Brazil

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Abstract

The institutional environment and uncertainty may influence the contractual design of producer-owned and controlled organizations in agribusiness. In Brazilian co-operatives, it is possible to observe more informal and relational behavior than formal written contractual relations. This essay discusses and explains why informal and relational contracts occur in co-operative organizations and searches for the logic of this kind of contract. A factorial analysis of empirical data shows the importance of co-operative economic performance for improving member participation and member relations. The paper concludes that informal and relational contracts may improve *influence rights* as residual rights in co-operatives that can minimize transaction costs in an uncertain institutional environment.

Key words

Relational Contracts, Co-operatives, Culture, New Institutional Economics

Introduction

Given an unstable institutional environment written formal contracts could be seen as even more appropriate. But, in this condition, uncertainty could also create high transaction costs for written formal contracts. It may be the case that informal relational contracts may complement or replace formal contracts. North (1990) explains the importance of institutional environments for the foundations of economic development, organizational architecture and business transactions. The institutional environment in Brazil can be characterized as functioning within an inflexible legal system and a low trust in justice with people preferring to trust others on the basis of their informal word. (World Value Survey 2003, Bialoskorski Neto 2004a) This influences the nature of contracts in co-operatives when one considers enforcement mechanisms in relation to informal and formal aspects of contracts.

In Brazil people will be more careful in their business transactions and will behave in ways to protect their transactions from current and future cases of opportunism. Improved forms of contractual safeguards

using formal contracts is not sufficient to guarantee transactions making relational and informal arrangements important in the Brazilian case. Demsetz (2002) argues that increased risk makes people more hesitant to accept the dependency that comes with formal written contracts.

For instance, as a function of social and economic uncertainty, contractors may desire non-formal committed or non-formal contractual relations, in this case informal relational contracts could be more acceptable. Co-operatives in Brazil are characterized by the limited use of formal contractual relations and a more extensive use of informal relationships. Co-operatives in Brazil could be considered relational organizations.

This is an important topic because co-operatives in Brazil do not currently show signs of evolving towards more defined property rights structures through formal contracts, in contrast to co-operatives in other countries that are increasingly concerned with organizational architecture to improve formal contracts and solve problems of vaguely defined property rights. The proportional variation in the balance between formal and relational contracts may result from culture and the institution context (Hofstede, 2001 and North 1990) Social and exchange value uncertainty and the role of formal contracts in improving self-enforcement in relational forms (Lazzarini, Miller and Zenger, 2004).

The paper will therefore discuss the use of informal relational contracts in co-operatives in Brazil and try to answer the question of whether this characteristic is important to member participation and the impact if any of informal contracts on co-operative economic performance. The initial hypothesis argues that there is a particular logic in informal relational contracts and this type of contract reduces transaction costs. Trust and social embeddedness are only two of all of the important characteristics. Others such as residual influence rights that let members receive benefits within the organizations, resulting from *residual control rights*, are also important to understand relational contracts in co-operatives.

Institutions and property rights influence in co-operatives

Social norms shape institutions that both constrain organizations and present opportunities to them. Thus,

organization occurs to access opportunities in a particular institutional environment (North, 1990). In a co-operative, a collective organization, the degree of interaction among economic agents and the allocation of property rights is important and can determine the organizational design and the probability of economic success. Hofstede (2001) argues that when collectivist society behavior values prevail, there is more moral involvement among members inside of organizations and more emotional dependence by members on their organizations. When individualistic behavior prevails, there is more calculative involvement and self-orientation in organizations. The same author suggests that organizational design can be explained as a result of mutual sympathy in a more intense collectivist society such as in the case of Brazil.

Furubton and Richter (2000) define property rights as the rights to use assets, to obtain income for assets, or to transfer assets. When the assets or the rights are transferred between economic actors, there are transactions costs. The allocation of property rights, in the presence of bounded rationality and contractual incompleteness, cause residual control rights and residual claims. In Brazilian co-operatives because of the vaguely defined property rights (Cook, 1995) there are more intense residual control rights, and if there are not clear rights in co-operatives on the residual income – typically in situations of equity redemption or in incomplete patronage refund programs – there are an increasing emphasis on residual claims.

Vaguely defined property rights result in high residual rights of control, decision and claims, and can increase problems with incomplete contracts as well as create difficulties in writing efficient contracts. Problems in defining property rights also occur because of the bounded rationality of economic actors and contractual incompleteness may expose contractual relations to the risk of opportunism. Furubton and Richter (2000) state that relational contracts can be understood as contracts that do not try to take into account all future contingencies. Such a contract contains implicit, informal and nonbinding characteristics. Transactions mediated by informal contracts must also contain bilateral dependence between contractual parties. These authors explain that it is necessary to understand bounded rationality to analyze contractual incompleteness. Because it is impossible to agree ex-ante on all future eventualities, the situation of incomplete contracts incurs high transactions costs.

Baker, Gibbons and Murphy (2002) argue that relational contracts, such as informal agreements and unwritten codes of conduct, affect the behavior of

individuals within firms. A third party must verify a formal contract, but relational contracts based on outcomes are seen only by contracting parties and are self-enforced. Lazzarini, Miller and Zenger (2004) argue that there is a complementary task between formal and informal rules, or that incomplete contracts complement informal dealings. Thus, low cost contracts are an important mechanism to support co-operation. Another important fact is that contracts facilitate the self-enforcement of non-contractible dimensions, and there is not evidence that contracts can be substituted for social norms.

Relational contracts are long-term agreements between contractual parties that do not have a formal writing party and are enforced by the parties in a “private ordering” and not by a third party or in the presence of a court. Williamson (1996) argues that “private ordering” is used in the environment of incomplete contracts and is self-created and self-enforced. For informal and relational contracts, self-enforcement and mutual trust are important tools. The first guarantees the enforcement of unwritten rules, and the second guarantees the transaction in the future (Lazzarini, Miller and Zenger 2004). Granovetter (1985) discusses the “shadow of the past”, which occurs when two parties interact throughout a long period and create norms, attachments and trust. The economic agent’s reputation occurs is built upon information about past behavior. Also, if organizations have social embeddedness, defined by Granovetter (1985) as a social acknowledgment and link among actors, trust is generated and malfeasance is discouraged.

Co-operative organizations, on the other hand, may also have an advantage in its social embeddedness, because some of the members of a specific community know the generations of families, past behavior, and the social needs in the future, for each actor or member. This argument enables a reduction in transactions costs, as well as in contractual opportunism, moral hazard, hold up and adverse selection. In the same line of thought, the co-operative is a consequence of social capital and can improve social capital and reduce the asymmetry of information in the community (Bialoskorski Neto, 2001).

Co-operatives in Brazil

In Brazilian co-operatives the member is the owner, the member is the patron, and the benefits of the co-operative belong to the members. In this type of organization, the members given the same rights within the organization, such as the right to vote, with one vote going to each member and the right to participate at some level of decision making in the general assembly;

if the member is selected, he can also participate at management levels. All members have the right to use services, obtain production, information, technical assistance, or acquire inputs, among others rights. Members manage co-operatives, or only rural producers that have exclusively rights to participate on the board and the rural producer president assume the direct co-operative management.

Therefore, there is not a separation between ownership and management, the board represents a party of active associates, can decide to further their own objectives or present proposals to the entire membership for voting. Traditional co-operative governance is based on long-term relational contracts between members and the organization. The member can put his production in the co-operative and buy inputs through the co-operative or not. The co-operative offers prices and services.

The co-operative organizational mission in Brazil is frequently improving the member income by offering better prices on time for the agricultural commodities or for the inputs in the stores, and offering free services such as technical support, market information, credit, special rural development programs, or services at cost like soil chemical analyses, satellite production monitoring, among others. In this case the co-operative tries to improve members' income immediately on time and does not make patronage refunds or distribution of financial outcomes to member. The benefits for the members are evident in prices, services, information and technology, or there are the non-price returns in quality of services and a non-cash return in services.

Because these management and organizational characteristics, without boundaries between ownership and management, the gap between the board and the employees or professional managers exhibits high residual decisions and control rights. These rights permit the employee to use the assets without a contractual control to improve benefits to members. In this situation residual decisions and control rights are used as "common" assets. If the member actively participates in general assemblies, councils or committees and participates in the co-operative, as a socially committed member, he also has the *right to influence* the employees to receive more benefits, attention, priority, or information than the member who is not socially committed and has does not participate.

On the other hand, this commitment to participate incurs costs for the member, such as transactions costs, costs of participation, and costs to create social relations; economic logic implies that the benefits from having influence and being able to exercise the rights to residual decisions and asset control rights must be great and significant enough to encourage the member to adopt such behavior and its associated costs.

The benefits of *influence rights*, defined as the rights to influence the use of residual decisions and asset control rights, are important incentives for forming relational contracts through participation, increasing influence in proportion to the informal relational contracts. This can promote a different motivation and level of membership commitment. On the other hand, if the co-operative shows economic performance efficiency the member should not spend his time and resources to participate or increase his influence. Therefore, it is possible to consider the logic of *influence right* as a specific arrangement to minimize transactions costs, to permit the informal relational contracts to flow freely. Additionally influence rights serve as a contractual incentive to members' participation in the co-operative organization.

Relational behavior, participation and economic performance

To try to find more evidence related to participation, a factor analysis was completed. Factor analysis identify factors, or underlying variables, that explain the pattern of correlations within a large number of observed variables, is also often used to identify a small number of factors that could show the variance observed in a larger number of variables. The initial hypothesis is that member participation in *educational committees*¹ at the community level increase relational behavior as well as relational informal contracts. If the co-operative organization improves its economic performance, the co-operative yields greater economic externalities and income to members – welfare – and the member does not have an incentive to create an informal relational commitment to have an influence right to use residual decisions rights, and participation could decrease. A mathematical model, using a game theory approach to examine this model and explain this hypothesis can be found in Bialoskorski Neto (2004a)

¹Educational committees on the community level are special local meetings of member s geared towards improving participation, increasing levels of information, and creating a local opportunity to discuss co-operative problems. All local members may participate in committees.

² SAC – Sistema de Acompanhamento de Co-operativas – Co-operative Monitoring System

³Kanitz financial index is used, in Brazil, to audit and verify the financial situation of organizations. This index is formed by different financial weight information, as debt ratio, own capital, liquid ratio, among others. This is a variable with continuum value. High value of Kanitz index better is the financial situation of co-operative organization.

In the case where the benefits from free services and prices created by the co-operative are sufficient, the costs of participation may be higher than the benefits of participation. But if the co-operative organization has a lower economic performance, the member may need to improve his relational commitment in order to increase his access to free services to better commercial relations. In this situation, the benefits of influence rights could encourage informal relational contracts and stimulate member participation. This logic explains correlations among economic performance of co-operatives and the intensity of member participation, in the general assembly and/or in educational committees at the community level, and the probability of creating relations and informal commitment in the co-operative organization.

Participation can result from member economic activity in co-operatives stemming from the intensity of free services like technical assistance from agronomists who are responsible for the direct relations between the organization and its members in rural areas, which can improve participation and relational commitments. Another important function for participation is the proportion of members associated with the co-operative among all regional farmers; this characteristic shows how important the co-operative is locally and can also show the distance between the member and the co-operative organization. A final important function is the proportion of regional agricultural products delivered to the co-operative. If this proportion is high the monopsony power of the organization is also high and can influence participation as well. If there is more monopsony power, there is less need for participation.

The data analyzed is from the Co-operative Monitoring System² from the Organization of Paraná state co-operatives. This is one of the oldest systems in Brazil with ten years of experience in monitoring the agricultural co-operatives in agribusiness and collecting data. The data was chosen only from primary co-operatives, excluding all central co-operatives (federated) and only the co-operatives that demonstrated experience in data collection with a coherent data series. These agricultural co-operatives are among the most important in Paraná state, Brazil.

The variables are the proportion of member participation in the co-operative annual general assembly – **PASSAGO**; the proportion of member participation in the educational committee – **PASSCMT**; the proportion of member economically active in the co-operative **PASSATV**; the proportion of free technical assistance to the producers in the economic performance area **PTECASS**; the proportion of members in total farmers

number in the performance area **PASSPDT**; the proportion of agricultural products delivered to the co-operative out of the performance area total **PTPDAC**; the proportion of inputs sold by co-operative organization out of the total of the performance area **PINS**.

The financial variables are given by the economic performance of the co-operative represented by the “Kanitz” financial index³ **KNT** (when this index is high, the co-operative organization has a better financial situation, and if this index is low the co-operative organization has a worse financial situation); by the results – patronage – retention **RETSBRA** and capital retention in co-operative operations **RETKPLA** (represents internal capital or the internal capitalization process). The statistical methodology of factorial analysis, shows three different components – factors – or underlying variables -, for this paper the most important component is the third factor, which shows the correlations among some variables and the participation in educational committee at the community level. This

Table 1. Factor analysis results - matrix of components with rotation by VARIMAX method, which shows three factors and the variables correlations.

	Matrix of Rotation Components		
	Components		
	1	2	3
PASSP	,865	3,180E-	1,660E-02
PTPDA	,827	,380	2,555E-02
PASSA	,773	-,219	-,128
PTECA	,630	-	,453
RETSB	,106	,829	-7,452E-02
PINS	-,128	,803	,126
KNT	-,161	,663	-,564
PASSA	-	-,584	-,278
RETKP	,206	,160	,815
PASSC	-,241	7,206E-	,809

Rotation and convergence in 4 interactions

participation in committees yields a positive correlation with free services in technical assistance, and with the capital retention (or capitalization process with internal capital), and a negative correlation with Kanitz financial index. Another factor, the second, shows participation in the general assembly with a negative correlation to the Kanitz financial index.

These observations can partly explain the proposition that if the co-operative organization is in a stronger financial condition and the likelihood of positive economic performance is high with an expectation based on past record of positive member benefits then member participation goes down in committees and general assembly. On the other hand, if the co-operatives economic performance is low the benefits to members probably decrease, but the member participation in their organization increases. This situation can create influence rights to get free informal benefits.

The results show also that the presence of high proportion of agronomists and free technical assistance – rural extension – is very important to create relations and increase participation in local committees. This correlation is important because it could describe the creation of relations in co-operatives, between the member and the rural extension service that encourages relations among members through educational committees.

The number of members is also important. Figure 2, shows the relation between the number of members in co-operative organizations and the relative participation in the general assembly. The relations are a logarithm function and if the co-operative has a larger number of members, the tendency of proportional participation is lower. In this situation, the importance of local area committees is major. This situation is probably due to the fact that if the co-operative has a large number of members, the division of decisions rights is high too. Each member has only one vote, but this vote does not have the same value as a vote in a smaller co-operative, with fewer members.

In the case of co-operatives with a greater number of members, there are probably serious problems with monitoring the action of their members. The residual decisions and control rights are greater and the benefits of influence rights are higher too. In this case, a lower participation can create a lower informal relational commitment with the co-operative, and the member that maintains the commitment must receive more benefits from this option. The co-operative organization has the same services and facilities for all members, but only the relational committed member has the rights of influence and the rights to received differential benefits in services or information. This model shows that there is a logic to relational commitment or influence rights to obtain the benefits to use residual control and decision rights. So, the value of informal relational commitment depends on the

Figure 1. Representation of variables in three-dimensional space created by calculating 3 factors

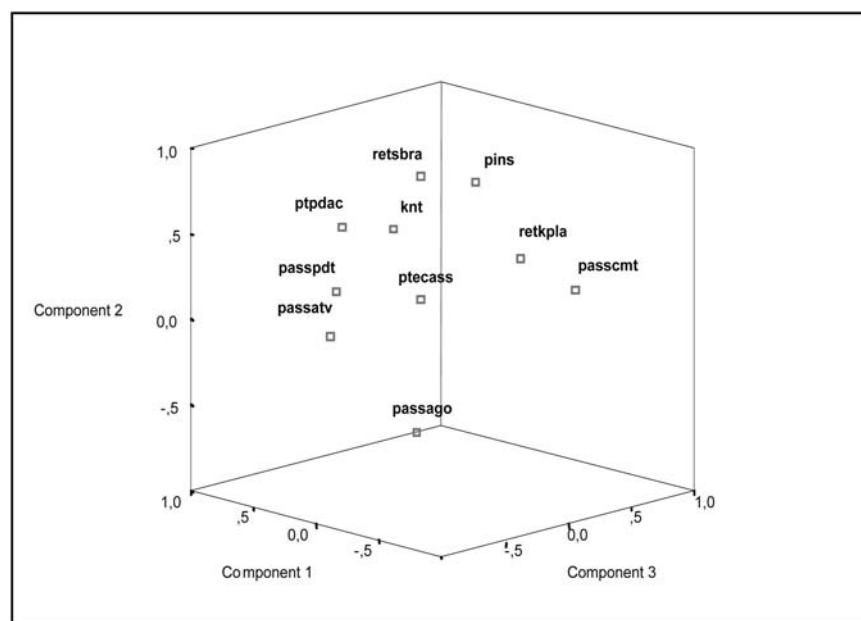
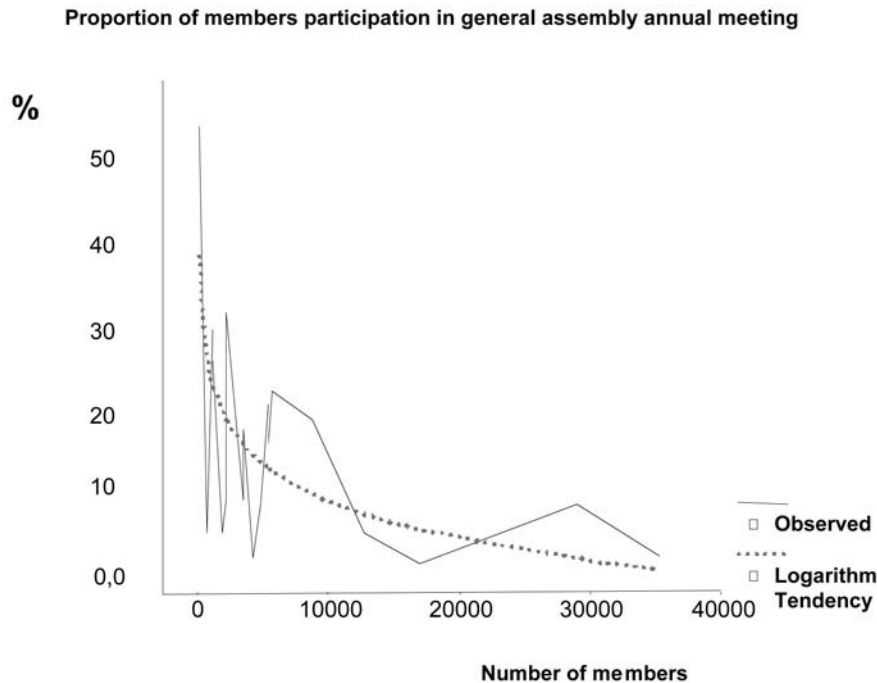


Figure 2. Relations between co-operative member participation and number of member in co-operative organizations for the 20 Paraná state, Brazil agricultural co-operatives. The trend line is a logarithm function.



benefits of influence resulting from the degree of residual control and decision rights.

Conclusions

Co-operatives in Brazil show intense informal relational contracts with few formal contracts in an environment of social and economic uncertainty. These organizations show evidence of vaguely defined property rights, few formal contracts, and improve informal relational contracts. There is a particular logic in informal relational contracts that could permit a particular governance system. Relational informal contracts may promote the commitment in proportion to *influence rights*, the member should spend his time and resources to participate or increase his influence only if the economic benefits are significant. For these members, *influence rights* to use residual decisions and control rights are important to guarantee participation in the co-operative organization. The co-operative organization offers the same services and facilities to all members, but only the relational committed members have the rights of influence and the rights to receive differential benefits in services or information.

The factorial analyses model explains this situation, which occurs with more intensity if the co-operative

organization has problems in offering contractual based benefits and services as a function of the worse economic performance. It is also possible to consider that only in the presence of vaguely defined property rights, will residual control rights arise and increase *influence rights* to refund, in free services for a special class of members, the special relational commitment. Also, in presence of uncertainty informal relational contracts may minimize transactions costs and governance costs in particular institutional environments.

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