The Costs of Democratic Control

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ABSTRACT

In the present study we discuss and examine the costs of democratic control, an important factor affecting competitiveness of traditional agricultural cooperatives. Despite there is some theoretical discussion about this issue, no empirical research has been done on these costs. The present study aims to bridge this gap in the literature. Following the literature, the main source of democratic costs in agricultural cooperatives is the level of member participation in cooperative governance. In the present study, we have developed more specific theoretical insights about this special kind of intra-firm transaction costs, by showing: the importance of democratic costs in cooperative decision making costs; the effect of differences in level of member participation on democratic costs; differences in terms of democratic and influence costs and in terms of agency costs. Furthermore, we distinguish democratic costs between both direct and opportunity costs. By distinguishing between direct and opportunity democratic costs, we draw attention to the fact that the mechanisms to increase member participation are not without costs. Frequently, studies focus mainly on the benefits of increased member participation, disregarding some of the costs associated with it. With regard to opportunity costs, a further distinction is made between costs associated to over-and underrepresentation. We also show that the relation between member participation at the board of directors and democratic costs is more complex than often assumed in the literature. Compared to previous studies, we have focused not only on board size, but also on board composition; i. e., which member groups the board represents. Board composition, with regard to internal stakeholder groups, is important topic to study because a board which misrepresents the cooperative is a likely source for opportunity democratic costs, as the board will make uniformed decisions or decisions which benefit some member groups, rather than the cooperative as a whole. The study has developed theoretical models which show that members should take the relative costs of both direct and opportunity costs in total democratic costs into account when determining the optimal size and composition of their board. In the study, five propositions have been developed. We have chosen agricultural cooperatives to look for evidences for this study. The results have shown that member participation at the general assembly is low for most cooperatives, even though some of them spend a lot of resources attempting to improve member participation. Clearly, this strategy has not worked. Cooperatives should consider that increased heterogeneity and complexity of cooperatives might form an unsurpassable barrier to increasing member participation. In addition, the study has shown that most of the studied cooperatives have underrepresented boards. Related to the previous point, cooperatives also have to be aware of overrepresented boards. The results showed that most of the examined cooperatives have producer groups which dominate the board to a larger extent than their contribution to the revenues of the cooperative justifies.

1. INTRODUCTION

There is a long-running debate in the cooperative literature around the question of whether the democratic control of cooperatives has more advantages than disadvantages. For instance, Österberg and Nilsson (2009) argue that the democratic principle has been a core element of cooperative business since the inception of the cooperative business form. However, according to them, member control is becoming increasingly problematic, especially in large cooperatives with diversified business activities and with large and heterogeneous memberships. Hendrikse and Veerman, (2001) argue that the disadvantage of member control in cooperatives compared to other governance structures does not necessarily have to cause the disappearance of these organizations. According to them, it is because the information generating aspects of member control on the internal organization is responsible for this. Despite there is some theoretical discussion about this issue (see also Staatz, 1987; Birchall & Simmons, 2004b; 2004c; amongst others), no empirical research has been done on the costs of the democratic control.

Following this debate, a more specific question that cooperative scholars (e. g., Birchall & Simmons, 2004b) raise is whether democratic control is compatible with market efficiency or whether it is a cost that would act as a disadvantage in the long-run. According to Zylbersztajn (1994) and Staatz (1987b), decision making in cooperatives is likely to be a more costly process than do in investor-owned firms. In the point of view of Zylbersztajn (1994), it is because decisions are made not only in the executive level, but also in the general assembly and in the board of directors. In the point of view of Staatz (1987a), it is because members of a cooperative, who produce and purchase different products, will have different preferences for how the cooperative should set prices and allocate costs. I. e., decision making in cooperatives is a more costly process than do in investor-owned firms because the cooperative is democratically controlled by members-patrons with conflicting interests.

In the present study we aim to discuss and examine the costs of democratic control, an important factor affecting competitiveness of traditional agricultural cooperatives. Following the literature, the main source of democratic costs in agricultural cooperatives is the level of member participation in cooperative governance. There is a view in the literature (e.g. Bhuyan, 2007) that active (i. e., higher level of) member participation is essential for cooperative success. This is because members participating actively (e. g., relations and communication between members and management) will be more loyal to the cooperative, which is essential for cooperative success (Bhuyan, 2007). Likewise, the negative apathy of members toward their organizations and organizational activities (i. e., lower level of member participation) is deemed to impact negatively on the performance of the cooperative (Bhuyan, 2007). Either members that feel ignored by their management (Goodman, 1994; Wachenheim *et al,* 2001), or members that lack understanding of some practices of their cooperatives (Cropp *et al,* 1998), are likely to have a negative attitude towards their cooperatives (e. g., tend to lack loyalty to their cooperatives). However, it is important to note that active member participation does not only bring benefits (and likewise, that lower participation does not always have disadvantages). Rather, increased member participation also carries costs, either because of the need to provide incentives to members to become interested or because members bring different, potentially conflicting interests to the decision-making process (Birchall & Simmons, 2004b).

Since the mid-1980s, the literature on the governance of organizations in general (and also the cooperative literature, e. g., Iliopoulos & Cook, 1999; Gripsrud, Lenvik & Olsen, 2000; Iliopoulos & Hendrikse, 2008) has been enriched by research that focuses on intra-firm transaction costs as an important source of decision-making inefficiencies. Most of these studies, however, have focused only on influence costs, a range of costs that includes certain types of democratic costs (though not all types, see section 2 below). We argue that previous

research has not taken into account: (1) the importance of democratic costs in cooperative decision making costs; (2) the effect of differences in level of member participation on democratic costs; (3) differences in terms of democratic and influence costs; and (4) differences in terms of democratic and agency costs. The present study aims to bridge this gap in the literature, by discussing and examining democratic costs in agricultural cooperatives, as well as the main (direct) driver of these costs: the level of member participation. More specifically, the study examines the following research question: *What is the relation between level of member participation and democratic costs in agricultural cooperatives?*

2. DEMOCRATIC COSTS

The concept of democratic costs has been largely ignored by the cooperative literature until now. The little literature that has been developed until now on democratic costs has been made by political scientists who study democratic costs of nations.

Democratic costs are a particular type of decision making costs that cooperatives incur since they are firms democratically controlled by members-patrons. More specifically, democratic costs are: (1), the costs that result from the need of providing incentives for members to participate in the collective decision making process; (2), the costs that result from the conflict of interest among members having to make decisions that affect the distribution of benefits and costs amongst them at collective governance bodies such as the general assembly and the board of directors; and (3), the costs that result from the cooperative's attempts to manage these conflicts or to prevent them (e. g. increasing/decreasing level of member participation).

These conflicts of interests may arise in two levels of the cooperative: in the horizontal level, and in the diagonal level. Horizontal conflicts of interests (i. e., among members) arise when members attempt to collectively make decisions about the distribution of benefits and costs at the general assembly. Diagonal conflicts of interests (i. e., among members and members of the board of directors) arise either when board members do not represent all members groups or when board is overrepresented.

Differences between democratic and agency costs. As it has been explained earlier in this section, democratic costs are the costs of collective decision making that result from horizontal and diagonal conflicts of interests. Alternatively, agency costs are the costs which members (i. e., owners) incur when they delegate control to a manager. Agency costs result from vertical conflicts of interests (i. e., between members and management), i. e., the costs of monitoring the performance and behavior of the management and the costs when management makes decisions which are not in the best interest of members. The difference between diagonal and vertical conflicts of interests needs perhaps some clarification. In the former, the board benefits some member groups at the expense of other groups, and a conflict of interest exists between these groups and the board. In the latter, management benefits itself at the expense of the cooperative (i.e., all member groups), and a conflict of interests exists between all members and management.

Differences between democratic and influence costs. Influence costs include those costs related to member (group) informal attempts (outside meetings) to influence management decision making for their (group) benefit (see Milgrom & Roberts, 1990; Iliopoulos & Cook, 1999). The concept disregards, for example, the costs of collective decision making at the level of the general assembly.

Types of democratic costs. Both in the horizontal (at the general assembly) and in the diagonal level (at the board of directors), democratic costs may arise in the form of direct and opportunity costs.

Direct democratic costs. Direct democratic costs are the costs associated with the members' time, board and executives' time and salary spent with collective decision making process. Direct democratic costs at the general assembly are incurred when members communicate and negotiate about what decision to take; e.g., the costs of cooperative members' time, the costs of executives' salaries and time spent on general and (pre-general) assemblies. Direct democratic costs at the board of directors are incurred when board members communicate and negotiate about what decision to take, e. g., the salary of board members.
Opportunity democratic costs. Opportunity democratic costs are the costs associated with delayed decisions, or failure to achieve decisions which maximize the benefit of all members. At the general assembly, they arise in situations such as: (1), when each member attempts to influence the collective decision making process to his own benefit; (2), when uninformed members make wrong or no decisions; and (3), when decision making takes-up too much time (which can result in lost opportunities), i. e., time which members could have spent on their farms, and cooperative executives on planning and managing the cooperative effectively. At the board of directors, they are incurred either when membership is underrepresented, or overrepresented at the board of directors. When membership is underrepresented at the board of directors, board members may make uninformed or no decisions or decisions that privilege producer groups who are represented at the board. When membership is overrepresented, board members may take too much time to make decisions.

What affects these costs? As we have explained in the first section, the main source of democratic costs is the level of member participation in cooperative governance. The relation between level of member participation (at the general assembly and at the board of directors) and (direct and opportunity) democratic costs is discussed in this section.
Relation between level of member participation and direct democratic costs. At the general assembly, direct democratic costs are likely to arise when a cooperative increases time spent on general meetings (e. g., pre-general assemblies at different cities, districts, regions). This means an increasing amount of executives' time (and salary), as well as member' time spent on meetings. Also, with an increasing number of (pre)general assemblies, more money is spent on organizing and hosting these meetings. At the board of directors, direct democratic costs are likely to arise when a cooperative increases its board size. A larger board means, for example, that salary costs increase. In other words, a positive relation is likely to exist between level of member participation and democratic costs. Higher levels of member participation *(x)* increase direct costs of democratic control *(y)*. Figure 1 shows two hypothetical trends in this relation.

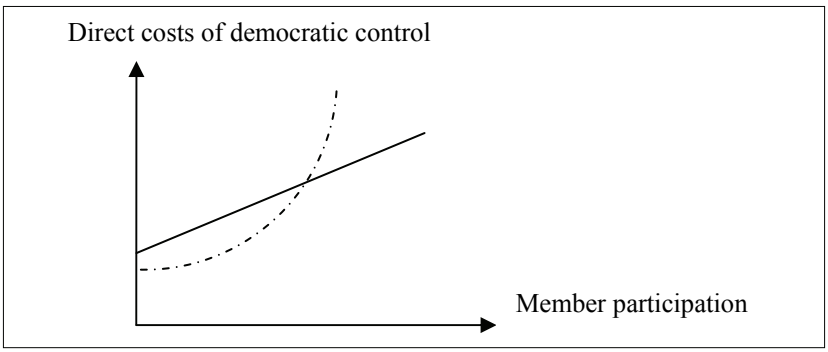

Figure 1 - Hypothetical relations between member participation and direct costs of democratic control

Relation between level of member participation and opportunity democratic costs. Opportunity democratic costs at the general assembly are likely to arise in situations such as: (1), when each member (or coalition member) attempts to influence the collective decision

making process to his own benefit; (2), when uninformed members make wrong decisions; and (3), when decision making takes-up too much time (which can result in lost opportunities). Staatz (1987) argues that because much of the time of cooperative manager may be spent on member relations, these organizations are put at a competitive disadvantage as their managers have less time than investor-owned firm's managers for strategic planning and administration.

Opportunity democratic costs are expected to arise when a cooperative has either a too small or too large board. A board is too small when not all groups of members (e. g., rice producers, dairy producers) are represented (i. e., underrepresented). When not all different member-groups are represented, the board might make uninformed decisions, or decisions which benefit their constituents rather than the cooperative as a whole. A board is too large when some member-groups are overrepresented. Because membership is overrepresented, decision making is likely to take too much time. In general, opportunity costs are likely to increase when board size becomes excessively large, even if interests of the various groups are aligned, because decision making becomes difficult. Mayer (1994) argues that extremely large boards can be cumbersome, slow, and expensive.

The relation between member participation and opportunity costs of democratic control is more complex. With low member participation *(x_1)*, opportunity costs are likely to be high *(y_2)*, because either uninformed decisions, or decisions which benefit those few members who are participating in the decision making process will be taken. Therefore, increased member participation (x_2) is likely to reduce opportunity costs (y_1). However, when member participation reaches a certain level (x_3), the marginal benefits of increased member participation is likely to fall (y_3). Figure 2 shows a hypothetical trend in the relation between member participation and opportunity costs of democratic control.

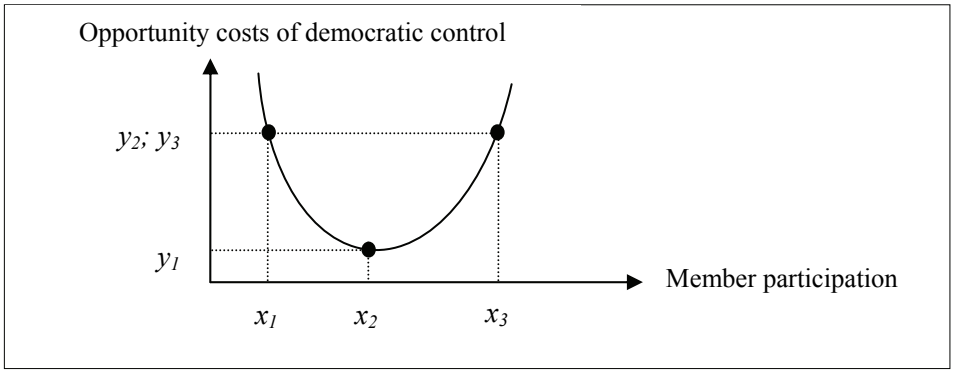

Figure 2 – Hypothetical relation between member participation and opportunity costs of democratic control

Relation between level of member participation and total democratic cost. Rather than controlling either direct or opportunity costs of democratic control, cooperatives should attempt to control them both; i.e., they should attempt to reduce total democratic costs. Total cost results from the combination of direct and opportunity costs which cooperatives incur in dealing with democratic control. The relation between member participation and total cost of democratic control (i.e., direct and opportunity costs) therefore depends on the relative weight of direct and opportunity costs in total costs. When direct costs are relatively more important, increased member participation is unlikely to bring much benefit, as total costs of democratic control will rise as a result. When opportunity costs are relatively more important, cooperatives will have more scope to increase member participation, at least when member participation is low, in order to reduce total cost of democratic control. Regardless of the relative weight of the two types of costs, when member participation is low, increased

member participation is likely to reduce total costs, at least initially, if the increase in direct costs is off-set by a reduction in opportunity costs. When member participation is already high, increased member participation is likely to increase total costs, as the increase in direct costs cannot be off-set anymore by a decrease in opportunity costs. Figure 3 shows two hypothetical trends in the relation between member participation and total costs of democratic control.

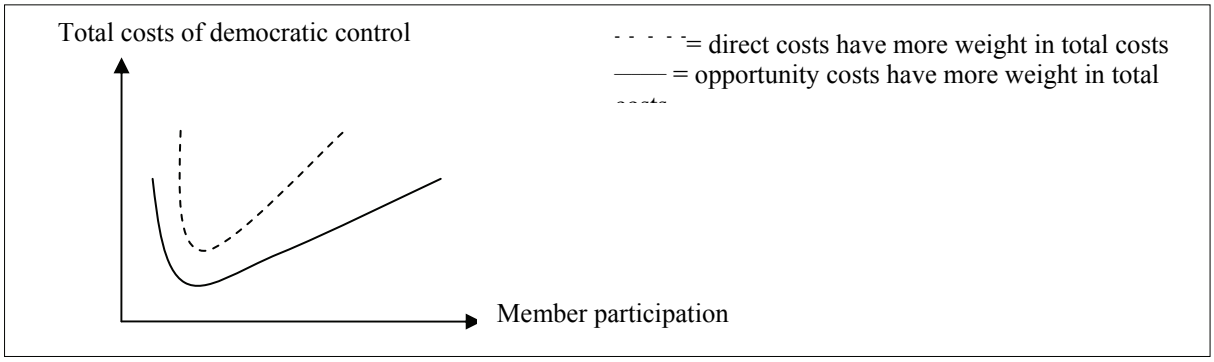

Figure 3 - Hypothetical relations between member participation and total costs of democratic control

How much participation is needed at the general assembly. In order to economize on democratic costs at general assemblies, large-scale cooperatives do not need 'mass' participation. Rather, as Birchall and Simmons (2004c) argue, they do need to identify which groups are underrepresented and mobilize them to participate. According to Birchall and Simmons (2004c), cooperatives need to target three types of members. First, they need to target a group of 'true believers' who can be persuaded to be trained as potential board members. Second, they need to target a group of members who can be formed into a kind of 'supporters club' who believe in the aims of the organization and will participate through voting or attending annual meetings or social events. Third, they need to target a group of those who believe vaguely in the ethos of the organization, will not participate, but want to be kept informed and to have their views canvassed occasionally.

How much participation is needed at the board of directors. In order to economize on democratic costs at the board of directors, cooperatives need to set a board of directors' size that represents interests of particular segments of the membership. Gray and Butler (1994) suggest that the greater the diversity in membership (large numbers of dissimilar characteristics), so does the need for representation. There are many possibilities to divide membership: by geographic districts, by type of farming operation, by size of farming operation, etc. According to Gray and Butler (1994), all of these divisions account for member diversity.

3. PROPOSITIONS

Following the discussion presented earlier, 5 propositions can be generated:

Proposition 1: *The higher is the level of member participation at the general assembly (x), the higher are the direct democratic costs (y).*

Proposition 2: *The lower is the level of member participation at the general assembly (x_1), the more likely the cooperative is to incur opportunity costs of underrepresentation (y_2). The higher is the level of member participation at the general assembly (x_3), the more likely the cooperative is to incur opportunity costs of overrepresentation.*

Proposition 3: *The larger is the board of directors (x), the higher are the direct democratic costs at the board of directors (y).*

Proposition 4: *Smaller boards (x) are more likely than larger boards to incur opportunity costs of underrepresentation (y).*
Proposition 5: *Larger boards (x) are more likely than smaller boards to incur opportunity costs of overrepresentation (y).*

5. RESEARCH DESIGN

The unit of analysis of the study is the cooperative. The study examines twelve agricultural cooperatives. The objective of the analysis is to identify differences in level of member participation and democratic costs across cooperatives.

Selection of cases. For this study, twelve cases from the Brazilian state of Rio Grande do Sul have been selected. Rio Grande do Sul (RS) has been the selected location for this study because it has a rich variety of small and large memberships and small and large boards of directors. Furthermore, in RS one can find large differences in cooperatives with regard to the number of products they receive, and number of regions (cities) in which they hold nucleus meetings. Differences in these attributes are likely to lead to differences in democratic costs across the cooperatives.

Data gathering method. For the study, semi-structured interviews have been hold both with elected and hired executive managers at all 12 cooperatives. Therefore, a total of 24 interviews have been hold between July-August, 2010. The interviews have been conducted by means of personal visits.

Research concepts and variables. Table 1 gives an overview of the operationalisation of the study's key concepts.

Table 1 – Operationalisation of the main concepts of the research

Category	*Variable*	*Proxy*	*Meaning*
Member participation	Member participation at the general assembly	Percentage of member participation at pre-general assemblies	High participation at pre-general assemblies is an indicator for high member participation
	Member participation at the board of directors	Board size	Large board is an indicator for high board participation
Democratic costs at the general assembly	*Direct* democratic costs at the general assembly	Number of members per nucleus	A low score on this ratio is an indicator that the cooperative has high direct costs of democratic control
	Opportunity democratic costs at the general assembly	Number of nucleuses locations per city	A ratio lower than one is an indicator for underrepresentation
Democratic costs at the board of directors	*Direct* democratic costs at the board of directors	Total board salary costs per cooperative per year	Higher salary costs is an indicator for higher direct costs of democratic control
	Opportunity democratic costs at the board of directors related to *underrepresentation*	Absolute rule: all products the cooperative receives should be represented at the board by at least one board member	If not all products are represented at the board, this is an indicator for opportunity costs related to underrepresentation
	Opportunity democratic costs at the board of directors related to over*representation*	Proportional rule: products should be represented at the board in the same proportion they are represented in the annual sales of the cooperative	If a product has higher proportional representation in the board than its share of the revenues justifies, this is an indicator for opportunity costs related to overrepresentation

The choice for some proxies perhaps needs some clarification. We have chosen 'number of members per nucleus' as a proxy for direct democratic costs at the general assembly because a cooperative may increase time with general assemblies by creating nucleuses of members (at different cities where the cooperatives members come from) and, as a consequence, nucleuses assemblies in order to help member participation in the decision making process.

We have chosen 'number of nucleuses locations per city' as a proxy for opportunity democratic costs at the general assembly because when membership is underrepresented (i. e., not members from all cities or members who produce all products the cooperative receives are present), for example, members who are present may make either wrong (e. g., uniformed) or decisions that benefit themselves in spite of the membership as a whole. On the other hand, when membership is overrepresented at the general assembly, decision making process may take too much time and, as a consequence, decisions may be frequently delayed.

Although there is a number of variables that can be used (e. g., by geographic districts, by size of farming operations, by product, etc.), this study uses the 'number of different products a cooperative receives' to characterize cooperative membership. The number of different products a cooperative receives is an important source for conflicts of interests. To reduce these conflicts and improve cooperative decision making, all products the cooperative receives should be represented at the board of directors by (at least) one board member (i.e., one of the board members should produce this product). When this is not the case, membership is underrepresented at the board. This is the 'absolute rule for board representation'.

Overrepresentation occurs when a product has higher proportional representation at the board, than its share of the annual revenues justifies (e.g., rice producers are responsible for generating 30% of the cooperative revenues, but deliver 8 out of 10 board members). A supplement to this rule is necessary to use it in practice. Board members frequently produce two or more products. Which product does such a board member represent? According to the proportional rule, a board member who produces two types of products has half a representation for each product (and a member who produces three has one third, and so on).

Rules for validation of propositions. Table 2 shows under which conditions the propositions will be validated.

Table 2 – Rules for validation of propositions

Propositions	*When are the propositions validated?*	
	Independent variables (proxies)	*Dependent variables (proxies)*
1: The higher is the level of member participation at the general assembly (x), the higher are the direct democratic costs (y).	The cooperative has high (low) proportional member participation at pre-general assemblies relative to other cooperatives	The cooperative has low (high) number of members per nucleus relative to other cooperatives
2: The lower is the level of member participation at the general assembly (x1), the more likely the cooperative is to incur opportunity costs of underrepresentation (y2).	The cooperative has low participation at the pre-general assembly relative to other cooperatives	The cooperative has less than one nucleus location per city
The higher is the level of member participation at the general assembly (x3), the more likely the cooperative is to incur opportunity costs of overrepresentation.	The cooperative has high participation at the pre-general assembly relative to other cooperatives	The cooperative has more than one nucleus location per city

3: The larger is the board of directors (x), the higher are the direct democratic costs at the board of directors (y).	The cooperative has a large board relative to other cooperatives	The cooperative has higher total salary costs
4: Smaller boards (x) are more likely than larger boards to incur opportunity costs of underrepresentation (y).	The cooperative has a small board relative to other cooperatives	Not all products received by the cooperative are represented at the board of directors
5: Larger boards (x) are more likely than smaller boards to incur opportunity costs of overrepresentation (y).	The cooperative has a large board relative to other cooperatives	One or more products the cooperative receives have a higher proportional representation in the board than its/their share of the revenues justifies

6. RESEARCH RESULTS AND ANALYSES

A general characterization of the researched cooperatives is given by Tables 3 and 4.

Table 3 – General characterization of researched cooperatives (general assembly)

Cooperative	*Membership Size*	*Level of Member participation at pre-general assemblies (%)*	*Number of members per nucleus*	*Number of nucleuses per city*
COOP-L	500	35	167	0.75
COOP-K	1,013	54	51	3
COOP-J	1,125	-	-	0
COOP-I	3,254	55	121	3
COOP-H	3,728	22	266	1
COOP-G	3,743	47	374	1
COOP-F	3,760	6	60	11
COOP-E	4,612	17	201	5
COOP-D	4,776	18	199	5
COOP-C	4,946	44	101	3
COOP-B	8,236	1	48	7
COOP-A	10,730	18	53	10
Mean	*4,202*	*29*	*149*	*4*
Minimun	*500*	*1*	*0*	*0*
Maximun	*10,730*	*55*	*374*	*11*

Table 4 – General characterization of researched cooperatives (board of directors)

Cooperative	*Board Size*	*Board Total Salary/ Year (R$)*	*Salary of one Board member/ Year (R$)*	*Number of products underrepresented at the board*	*Number of products overrepresented at the board*
COOP-L	6	15,000	2,500	0	2
COOP-F	8	29,376	3,672	2	1
COOP-E	9	65,988	7,332	7	1
COOP-I	9	65,124	7,236	2	1
COOP-J	9	72,000	8,000	0	1
COOP-G	10	61,380	6,138	1	1
COOP-D	12	66,000	5,500	3	1
COOP-H	12	56,880	4,740	2	0
COOP-C	15	65,126	4,341	3	2
COOP-B	19	109,200	5,747	0	1
COOP-A	20	91,780	4,589	3	3
COOP-K	20	106,827	5,341	0	1
Mean	12	67,057	5,428	2	1
Minimun	6	15,000	2,500	0	0
Maximun	20	109,200	8,000	7	3

Relation between level of member participation at the general assembly and direct democratic costs. The relation between level (%) of member participation at pre-general assemblies and number of members per nucleus is presented in Figure 4. The results show that except COOP-J, all of the researched cooperatives do incur in direct democratic costs at the general assembly. This is because they create nucleuses of members and, as a result, they make nucleuses assemblies to help active member participation. We have examined the relation between level of member participation and number of members per nucleuses. We have found that creating nucleuses helps to increase the level of member participation. Exceptions are COOP-F and COOP-B which have created a very high number of nucleuses (as one can observe by means of the ratio 'number of members per nucleus') but have not reached an increasing in its level of member participation at the general assembly. Creating more nucleuses than is necessary makes cooperatives incur in higher democratic costs and does not help too much increasing the level of member participation. As an alternative, COOP-G does show that it is possible to have higher number of members per nucleuses and a high percentage of member participation at pre-general assemblies.

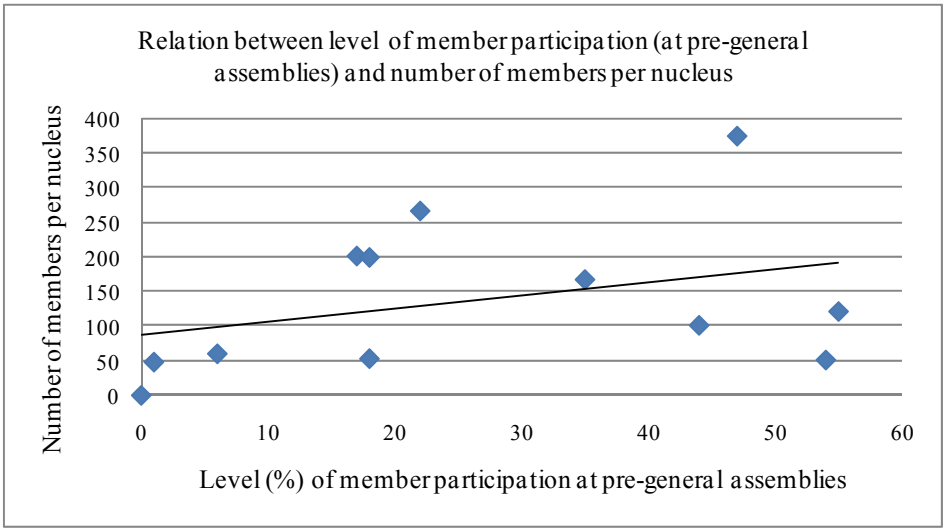

Figure 4 - Relation between percentage of member participation at pre-general assemblies and number of members per nucleus

Relation between level of member participation at the general assembly and opportunity democratic costs. The results show that most cooperatives (COOP-B, COOP-F, COOP-E, COOP-D, COOP-A, COOP-C, COOP-K, COOP-I) do incur in opportunity democratic costs at the general assembly related to overrepresentation. This is because they have created a lot of number of nucleuses per city from where their members come from, in order to help member participation, when one nucleus per city would be already sufficient. On the other hand, COOP-J and COOP-L do incur in opportunity democratic costs at the general assembly related to underrepresentation. COOP-J has members in 7 cities and has not any nucleus. As COOP-J has not nucleuses, the cooperative does not make pre-general assemblies, i. e., all its members are assembled in only one general assembly. This can suggest underrepresentation since may be easier for members from the same city where is the headquarter of the cooperative to participate in the assembly more than members who come from other cities. COOP-L has not nucleus in the city where the headquarter of the cooperative is placed. However, the cooperative assembles members from other cities in mini-meetings. Members from this city have only the opportunity to participate directly in the general assembly. It suggests underrepresentation. Exceptions are COOP-H, and COOP-G which have the optimal

number of nucleuses per city. It means that COOP-H and COOP-G do not incur either in opportunity costs related to under nor related to overrepresentation at the general assembly.

Relation between level of member participation at the board of directors and direct democratic costs. The relation between board size and board total salary per year is shown in Figure 6. As it is shown in Figure 6, board total salary costs increase when board size increases. This is because cooperatives which increase board size do not reduce average salary cost per board member. In fact, the two cooperatives with the smallest board total salary costs, also have the lowest average salary cost per board member. The results clearly support proposition 3, that states that direct democratic costs at the board of directors increase as member participation at the board increases (as measured by board size).

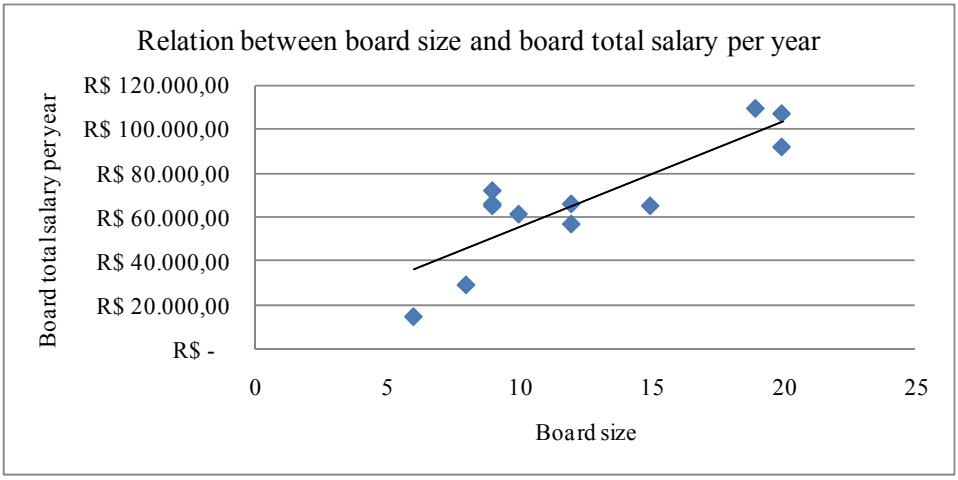

Figure 6 - Relation between board size and board total salary per year

Relation between level of member participation at the board of directors and opportunity democratic costs – underrepresentation. The results show that, according to the absolute rule of board representation, 8 out of 12 cooperatives have underrepresented boards (i.e., not all products the cooperatives receive are represented at the board). From the 8 cooperatives which the board is underrepresented, 4 of them have small board (considering smaller boards the ones which have less than 10 members) and four of them have large board (considering larger boards the ones which have more than 10 members). As a consequence, the results do not validate proposition 4.

However, almost all products which are 'underrepresented' at the board of directors are products which contribute only marginally to the cooperatives' revenues. For example, COOP-E has 7 products (out of a total of 9) which are not represented at the board. However, none of the products individually contributes more than 3% to the revenues, and as a group they contribute only 9%. Unsurprisingly, COOP-E's board is dominated, and in fact completely made-up, of rice and soya producers who together are responsible for 91% of the cooperative's revenues. COOP-E's situation is typical of the other cooperatives that have underrepresentation at the board. This suggests a couple of things. First, cooperatives should think about whether they want to continue to receive products which contribute little to their revenues. If so, should not these products be better represented at board level, for example by one board member who represents all minority producers? If the minority producers are better represented at the board of directors, perhaps their contribution to cooperative revenues would increase. Second, the absolute rule is perhaps too harsh in determining underrepresentation (since each product the cooperative receives should be represented by, at least, one board member). Should products which do not contribute significantly to the cooperatives revenues

be represented at the board of directors? However, as is outlined earlier, cooperatives can attempt to increase product representation by trying to obtain board members who produce a marginal product besides one of the main products.

Relation between level of member participation at the board of directors and opportunity democratic costs – overrepresentation. The results show that only in one cooperative (COOP-H), membership is not overrepresented, meaning that only one cooperative does not incur in opportunity democratic costs at the board of directors with regard to overrepresentation. On the other hand, at 8 cooperatives, membership is overrepresented at the board of directors with regard to one product; at 2 cooperatives, membership is overrepresented at the board of directors with regard to two products; and at 1 cooperative, membership is overrepresented at the board of directors with regard to three products. From the 11 cooperatives which the board is overrepresented, 4 of them have small board (considering smaller boards the ones which have less than 10 members) and 4 of them have large board (considering larger boards the ones which have more than 10 members). As a consequence, the results do not validate proposition 5, as both small and large boards are overrepresented, considering the proportional rule.

Despite in most of the cases the overrepresentation is not high, what happens in three cooperatives is the fact that the third producers group (in terms of revenues) has more board members than the second group. For example, at COOP-C, wheat producers (the third producer group in terms of revenues), who represent 13% of the cooperatives annual revenues, are represented in the board of directors by four members, when they should be represented by two. At the same time, maize producers (the second largest revenue of the cooperative, with 16%) are represented by three board members, i. e., less than the number of board members representing the third group. The same happens with COOP-B and COOP-G.

Discussion. The main focus of the present study has been to discuss and examine the costs of democratic control in member-controlled firms, such as agricultural cooperatives. More specifically, we have examined the relation between level of member participation (at the general assembly and at the board of directors) and democratic costs. Level of member participation is the main driver of democratic costs in agricultural cooperatives.

Five propositions have helped us to have a portrait of direct and opportunity democratic costs that agricultural cooperatives face at their collective governance bodies, i. e., at the general assembly and at the board of directors. Our conclusion about the costs of democratic control of the researched cooperatives is the following.

First, except COOP-J, all of the researched cooperatives do incur in direct democratic costs at the general assembly. This is because they create nucleuses of members and, as a result, they make nucleuses assemblies to help active member participation. We have examined the relation between level of member participation and number of members per nucleuses. We have found that creating nucleuses helps to increase the level of member participation. Exceptions are COOP-F and COOP-B which have created a very high number of nucleuses (as one can observe by means of the ratio 'number of members per nucleus') but have not reached an increasing in its level of member participation at the general assembly. Creating more nucleuses than is necessary makes cooperatives incur in higher democratic costs and does not help too much increasing the level of member participation. As an alternative, COOP-G does show that it is possible to have higher number of members per nucleuses and a high percentage of member participation at pre-general assemblies.

Second, most cooperatives (COOP-B, COOP-F, COOP-E, COOP-D, COOP-A, COOP-C, COOP-K, COOP-I) do incur in opportunity democratic costs at the general assembly related to overrepresentation. This is because they have created a lot of number of

nucleuses per city from where their members come from, in order to help member participation, when one nucleus per city would be already sufficient. On the other hand, COOP-J and COOP-L do incur in opportunity democratic costs at the general assembly related to underrepresentation. COOP-J has members in 7 cities and has not any nucleus. As COOP-J has not nucleuses, the cooperative does not make pre-general assemblies, i. e., all its members are assembled in only one general assembly. This can suggest underrepresentation since may be easier for members from the same city where is the headquarter of the cooperative to participate in the assembly more than members who come from other cities. COOP-L has not nucleus in the city where the headquarter of the cooperative is placed. However, the cooperative assembles members from other cities in mini-meetings. Members from this city have only the opportunity to participate directly in the general assembly. It suggests underrepresentation. Exceptions are COOP-H, and COOP-G which have the optimal number of nucleuses per city. It means that COOP-H and COOP-G do not incur either in opportunity costs related to under nor related to overrepresentation at the general assembly.

Third, some cooperatives (COOP-E, COOP-I, COOP-J, COOP-G, and COOP-B) do incur in direct democratic costs at the board of directors because they have smaller board size but pay higher salaries per member.

Fourth, most cooperatives (COOP-E, COOP-D, COOP-C, COOP-I, COOP-H, COOP-G, COOP-F and COOP-A) do incur in opportunity democratic costs at the board of directors related to underrepresentation. However, the products that are underrepresented at the board are those which represent less than 5% of their cooperatives annual revenues. So, underrepresentation at the board of directors in the research cooperatives is not such a problem. As a consequence, despite opportunity costs are likely to incur in this case, they are likely to be not so high since underrepresented groups do not have high bargaining power at the cooperatives annual revenues.

Fifth, most cooperatives do incur in opportunity democratic costs at the board of directors related to overrepresentation. In COOP-E, COOP-D, COOP-K, COOP-I, COOP-L, COOP-J and COOP-F, the level of overrepresentation is not very high, i. e., instead of having two board members representing a product they have three, for example. In COOP-C, COOP-B, COOP-G and COOP-A, the level of overrepresentation is a bit higher, i. e., instead of having two board members representing a product they have four, for example.

Table 5 presents a ranking of the costs of democratic control which researched cooperatives face.

Table 5 – Ranking of the researched cooperatives with regard to the costs of democratic control

Cooperative	*General assembly*			*Board of directors*			*Average*
	Direct costs	*Opportunity costs*		*Direct costs*	*Opportunity costs*		
		Under	*Over*		*Under*	*Over*	
COOP-H	+	0	0	0	+	0	2
COOP-L	+	+	0	0	0	+	3
COOP-J	0	+	0	+	0	+	3
COOP-K	+	0	+	0	0	+	3
COOP-G	+	0	0	+	+	+	4
COOP-D	+	0	+	0	+	+	4
COOP-F	+	0	+	0	+	+	4
COOP-B	+	0	+	+	0	+	4
COOP-C	+	0	+	0	+	+	4
COOP-A	+	0	+	0	+	+	4
COOP-I	+	0	+	+	+	+	5
COOP-E	+	0	+	+	+	+	5

Results from Table 5 show that, in average, all researched cooperatives incur in democratic costs. COOP-H incurs in lower democratic costs and COOP-I and COOP-E incur in higher democratic costs.

Our advice to cooperatives is that they should pay more attention at their best possible membership representation levels at the general assembly and at the board of directors to keep their firm competitive in terms of decision making costs in relation to other cooperatives and particularly to their investor-owned firm competitors.

- At the general assembly, creating too much nucleus (more than one nucleus per city) increases direct democratic costs and does not seem to increase member participation.
- At the board of directors, for the cooperatives that have marginal products underrepresented, of course, an increase in board size would mean that marginal producer groups would be better represented. But it would also mean an increase in direct costs, as higher salary costs need to be paid. However, in this case, there is no one-to-one trade-off between direct and opportunity costs. As is explained above, cooperatives can increase the representativeness of the board without increasing board size; i.e. by electing board members who produce both majority and minority products.

7. CONCLUSION

The present study aimed to contribute to the debate on democratic costs. The reason for that is because we have not found empirical studies in the cooperative literature on the costs of democratic control, even though it is well known in the cooperative literature that decision making in cooperatives is likely to be a more costly process than do in investor-owned firms.
In order to do that, we have identified the main drivers of these costs which are the level of heterogeneity and the level of member participation. These two drivers influence democratic costs in two different ways. The former influences democratic costs indirectly, and the second influences democratic costs directly.

We had examined this directly relation in detail by means of five propositions. These five propositions have been developed since there are two types of member participation of interest to the present study, i. e., member participation at the general assembly and member participation at the board of directors, with a combination of two types of democratic costs, i. e., direct and opportunity democratic costs. So, the study has examined the following relations: relation between member participation at the general assembly and direct democratic costs (Proposition 1); relation between member participation at the general assembly and opportunity democratic costs (Proposition 2); relation between member participation at the board of directors and direct democratic costs (Proposition 3); relation between member participation at the board of directors and opportunity democratic costs with regard to underrepresentation (Proposition 4); and relation between member participation at the board of directors and opportunity democratic costs with regard to overrepresentation (Proposition 5). The proposition that has examined the relation between member participation at the general assembly and direct democratic costs, for example, has been the following: *The higher is the level of member participation, the higher are the direct democratic costs at the general assembly.*

As democratic costs are difficult to measure, particularly opportunity costs, we have used proxies for examining the relations between our main variables. For example, 'percentage of member participation at pre-general assemblies' has been used as a proxy for the variable 'member participation at general assembly', and 'number of members per nucleus' has been used as a proxy to 'direct costs at the general assembly'.

In order to test this and the other propositions of our study, we have used data from twelve agricultural cooperatives from the Brazilian state of Rio Grande do Sul (RS). We have

found very rich data from RS's cooperatives, which helped us to examine the relation between level of member participation and democratic costs.

The results from each proposition are summarized now. Proposition 1 recommended that *the higher is the level of member participation, the higher are the direct democratic costs at the general assembly.* The results show that, in general, this proposition holds true, i. e., cooperatives with higher level of member participation spend more resources on the collective decision making process (by making more nucleus meeting locations available to their members).

Proposition 2 suggested that *the lower is the level of member participation at the general assembly, the more likely the cooperative is to incur opportunity costs of underrepresentation at the general assembly. The higher is the level of member participation at the general assembly, the more likely the cooperative is to incur opportunity costs of overrepresentation at the general assembly.* The results show that indeed some cooperatives (COOP-H and COOP-G) have memberships who are neither underrepresented nor overrepresented at the general assembly meaning that they are economizing on opportunity democratic costs at the general assembly. On the other hand, some other cooperatives (e. g., COOP-A and COOP-F) have at least 3 nucleus locations per city that suggests that these cooperatives incur democratic costs related to overrepresentation, while COOP-L has 0.75 nucleuses per city what can suggest underrepresentation and COOP-J do not have nucleuses what can suggest underrepresentation since may be easier for members from the same city where is the headquarters of the cooperative to participate in the assembly more than members who come from other cities.

Proposition 3 recommended that *the larger is the board of directors, the higher are the direct democratic costs at the board of directors.* The results clearly support proposition 3, because cooperatives which increase board size do not reduce average salary cost per board member.

Proposition 4 suggested that *smaller boards are more likely than larger boards to incur opportunity costs of underrepresentation.* The results do not validate proposition 4, since from the 8 cooperatives which the board is underrepresented, 4 of them have small board (considering smaller boards the ones which have less than 10 members) and four of them have large board (considering larger boards the ones which have more than 10 members).

Proposition 5 recommended that *larger boards are more likely than smaller boards to incur opportunity costs of overrepresentation.* The results do not validate proposition 5, as both small and large boards are overrepresented, considering the proportional rule.

The present study provided some theoretical, methodological and managerial contributions. Sections below outline these contributions. Limitations of the research and directions for further research are given further in study 5.

Theoretical contributions. The present study has developed more specific theoretical insights about a special kind of intra-firm transaction costs named democratic costs. In the present study, we have: (1), developed the concept of democratic costs; (2), showed differences between democratic and agency costs; (3), showed differences between democratic and influence costs; (4), discussed two different types of democratic costs: direct and opportunity costs; and (5) examined the relation between level of member participation (at the general assembly and at the board of directors) and democratic costs.

By distinguishing between direct and opportunity democratic costs, the study has drawn attention to the fact that the mechanisms to increase member participation are not without costs. Frequently, studies focus mainly on the benefits of increased member participation, disregarding some of the costs associated with it. These costs include both

direct costs, as when more resources are spent on holding meetings, and opportunity costs, as the decision making process becomes slower because more people are involved in cooperative governance.

With regard to opportunity costs, a further distinction has been made between costs associated to over-and underrepresentation. In addition, in the present study, new methods and measures have been developed to assess democratic costs. For example, one measure for opportunity costs at the board of directors is to look whether all products the cooperative receives are represented at the board of directors by at least one board member. When it is not the case, membership is underrepresented at the board of directors. Previous studies focused on intra-firm transaction cost frequently ignore opportunity costs. Therefore, measures for it have been undeveloped until now.

Furthermore, the present study has shown that the relation between member participation at the board of directors and democratic costs is more complex than often assumed in the literature. Compared to previous studies, this study focused not only on board size, but also on board composition; i. e., which member groups the board represents. Board composition, with regard to internal stakeholder groups, is important topic to study because a board which misrepresents the cooperative is a likely source for opportunity democratic costs, as the board will make uniformed decisions or decisions which benefit some member groups, rather than the cooperative as a whole. The study has developed theoretical models (Figure 25) which show that members should take the relative costs of both direct and opportunity costs in total democratic costs into account when determining the optimal size and composition of their board.

Managerial implications. The present study has shown that member participation at the general assembly is low for most cooperatives, even though some of them spend a lot of resources attempting to improve member participation. Clearly, this strategy has not worked. Cooperatives should consider that increased heterogeneity and complexity of cooperatives might form an unsurpassable barrier to increasing member participation.

In addition, the present study has shown that most of the studied cooperatives have underrepresented boards. Related to the previous point, cooperatives also have to be aware of overrepresented boards. The results showed that most of the examined cooperatives have producer groups which dominate the board to a larger extent than their contribution to the revenues of the cooperative justifies. This ‘crowd-outs’ board representatives of some of the other producer groups. Cooperatives should attempt to increase product representation at the board in order to align the economic interests groups have in the cooperative better with their control rights. Amongst others, this can be achieved by allocating some of the board seats of the overrepresented groups to that of the underrepresented seats. An alternative strategy is to obtain board members who produce multiple products; e. g., a board member who produces marginal products of the cooperative (i. e., products which contribute little to cooperative revenues) besides one of the main products. Another approach is that cooperatives could allocate a board seat to a ‘minority-representative’; i. e., a board member which represents various minority products. The point is that board representativeness can be increased without increasing board.

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