

COOPERATIVE GOVERNANCE AND MANAGEMENT CONTROL SYSTEMS: AN AGENCY COSTS THEORETICAL APPROACH

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ABSTRACT

Cooperative organizations have a unique property and decision rights distribution system that involve management problems and transaction costs. Such structure creates equity rights and risk transfers that directly affect these organizations' self-management efficiency. This paper analyses those costs and sources of inefficiency to explain their problems in two complementary and different ways. First it discusses main governance aspects that generate agency conflicts; second it analyses the characteristics of managerial systems which generate informational asymmetry and monitoring problems. An analysis regarding both property rights distribution among members and decision rights distribution between elected members and hired professional executives indicates that equity rights and risk sharing in cooperative's contractual relations leads to a typology on the kind of governance, the management model and the managerial information system characteristics which could reduce agency problems. The methodology used was theoretical discussion, and comparison of the management models and systems of rural credit and agricultural cooperatives in Brazil. A questionnaire was applied in five cooperatives to compare management models and systems. Our final considerations show that better cooperative's management model organization, as well as management systems, could reduce their agency costs.

Key-words: cooperative governance; management accounting systems; agency costs.

1 INTRODUCTION

Analyzing organizational efficiency from the perspective of organizational economics demands consideration about decision making and strategic planning processes from two different and complementary perspectives: distribution of control rights and decision power – the governance perspective – and information value and availability – management control systems perspective.

Dietrich (2001) argues that to systematize different perspectives about control rights demand an analysis about the structure of the organization, depending on its governance and decision rights distribution among stakeholders, as well as on its control processes, depending

on information flow and therefore on managerial system characteristics. Thus, both dimensions can classify such processes.

Regarding the economic nature of the firm, specially the distribution of net-profits, different organizations may be classified under different categories (HANSMANN, 1980; BIALOSKORSKI NETO, 2006). The first category includes organizations with profit as their main economic objective – *for-profit* – with control structure and control processes focused on activities which generate revenue and based on economic-financial numbers.

The second category includes organizations without economic or profit objectives, aiming to provide social or public services – *nonprofit*. In such organizations the control structure and processes targets the provision of public services, with rare concerns about the production factors allocation or economic efficiency. Nonetheless, the controls systems are concerned about the social dimension of the services provided, normally expressed in social indicators numbers and not in economic-financial numbers.

The third category, directly related to this paper, characterizes the organizations with an economic objective but without an objective of net-profit distribution. These organizations – *not-for-profit*, e.g. agricultural cooperatives – have both economic- and service-provision objectives. In such organizations, the control system is more complex than in the previous cases, both in its structure and process perspectives, demanding monitoring of both economic- and service-provision results.

Discussions about the characteristics of management control systems in *not-for-profit* organizations, specially their governance complexity, are essentials: they have unique and particular characteristics in their control processes and structures, the latter deeply related to particular cooperative governance characteristics.

What we want to discuss in this paper is whether the particular governance structure and the specific contractual complexity in cooperative organizations demand specific and different management control system structures, in order to minimize transactions costs and improve efficiency.

The objective of this paper is to describe management control systems and characteristics of control in *not-for-profit* organizations, specifically agricultural cooperatives. We analyze two different examples, having property and control separated in different agents and having both property and control done by the same agents, in order to understand different control structures and procedures as well as the importance of managerial systems to minimize transactions costs. To do this, we provide firstly a theoretical discussion; then, the paper describes managerial characteristics in Brazilian agribusiness cooperatives, present a survey, and ends presenting final considerations.

2 INCENTIVES AND AGENCY COSTS

Organizational characteristics of cooperatives, according to their doctrinaire fundamentals, define a particular distribution set of property rights, decision power, and residual earnings among their members. Such distribution set directly influences their governance model and their manager's role.

In a cooperative organization, members have a unitary decision right – one member, one vote – in the general assembly, which is used, among other strategic decisions, to elect the board of directors and to delegate to them enough strategic power to run the cooperative. In some cases, these board members run themselves the business as a whole and the service provision to its members in particular (member-manager); in others, they may hire a professional executive who will receive specific decision and management powers to do it (professional-manager).

Hansmann (1988) points out that costs from managerial opportunism are sometimes smaller than the costs of effective monitoring. That is, for the members-patrons of the

cooperative organization the costs of managerial opportunism due to hiring a professional-manager to run it may be minor than the alternative of having both ownership and managerial responsibilities.

Jensen and Meckling (1976) describe agency problems from the point of view where one party – the *principal* – is responsible to hire a second party – the *agent* – who must act in accordance with the hers/his interests. In such situation, the authors predict that the *agent* may try to maximize hers/his own interest, even if it diverts from the *principal's* interest. In cooperative organizations, the professional-manager is the *agent* who should act only on behalf of the cooperative members only, but may not do so.

In cooperative organizations, agency problems are more conspicuous, leading to management costs, analyzed as governance problems, such as:

- Costs due to the *principal's* efforts to monitor the *agent* in order to reduce losses caused by her/his actions on hers/his behalf in detriment to the *principal's* interests. These costs represent the ones incurred by the board of directors and fiscal council when monitoring and controlling the hired body of managers;
- Contractual costs due to the *agent's* commitment to the *principal*. In other words, the efforts to keep the contractual relations of acting on behalf of someone else. These costs represent the ones incurred to force the professional-manager to act in accordance to the members' best interests, even though this action may not always be the best for the organization;
- Costs generated by a reduction in the *principal's* revenue induced by natural orientation and decision divergence between the parties. This important cost stems from the fact that the *agent* – a hired manager in this case – tends to act according to his/her own interest in some issues which are hard to be monitored by the board and the fiscal council, raising the professional-manager's compensation in detriment to the cooperative members' revenue.

Figure 1 shows different situations in which the cooperative organization would figure

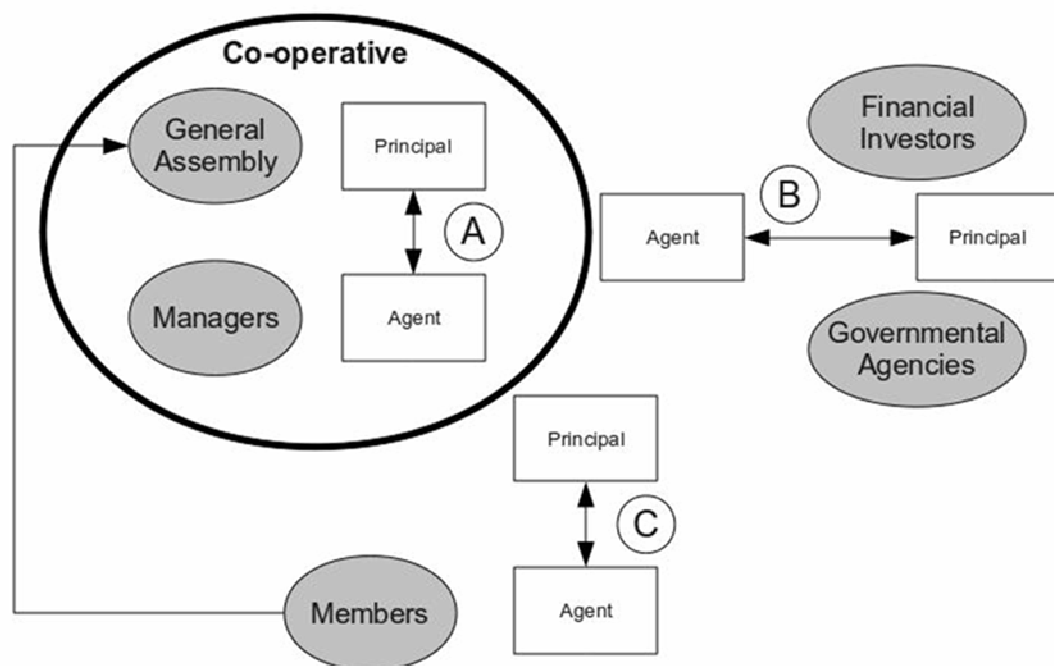


Figure 1.

Agency relationships in cooperative organizations; A, B and C identify different types of relationships and sources of transaction costs (BIALOSKORSKI NETO, 2006).

either as principal or as agent in different relationships. The Situation A shows the cooperative members as *principals* and the professional-manager as *agent*. It also illustrates situations in which financial investors / governmental agencies might be considered *principals* while professional-managers are *agents* (B), and the cooperative organization as a whole might be considered the *principal* in the relationship with its own members as *agents* cooperative (C).

All these three types of relationship present the incentive problems and the monitoring costs as described above. Therefore, it is important to notice that the cooperative organizational structure has several sources of transaction costs that could be minimized using better governance practices, more efficient management control systems, and more transparent management practices by the hired executives.

Considering specially the Situation A presented, the relationship between the members at the General Assembly (*principal*) and the professional-manager (*agent*) can also be described regarding their risk bearing/avoiding behaviors. Possibly in any case either the *principal* and/or the *agent* could avoid or remain neutral about bearing the risks of the cooperative businesses. If the *agent* is risk neutral, Milgrom and Roberts (1992) explain that contractual incentives like variable compensation based on equity might work both to increase efficiency and to conduct hers/his actions towards the *principal's* interests. On the contrary, when the *agent* avoids risk, only the fixed compensation part will be accepted, and different incentive and control methods must be used.

Through the *principal's* perspective, if she/he is risk neutral, might be willing to bear more of the businesses' risk, which raises hers/his expectation for the variable compensation part – i.e. equity. Otherwise, if the *principal* avoids risk, just an immediate compensation on services or prices advantage will be acceptable regarding the relationship with the cooperative.

Depending on the characteristics of the agency relationship and degree of risk aversion, it is possible to have different arrangements between *principal* and *agent*, incurring in different situations of financial results appropriation efficiency. In Brazilian cooperatives, given that agricultural producers are highly risk averse, the most used arrangement is the one which does *not* distribute equity in cash, but instead does offer free services, lower input prices and better payment conditions to cooperative members.

Table 1 shows different situations regarding principal's and agent's behaviors towards risk in cooperatives, as well as its respective most common contractual incentive strategies to make sure that the agent acts in accordance to the principal's expectations. In the case of Brazilian agricultural cooperatives the most frequent situation is the one when both principal and agent avoid risks (first set).

Table 1.

Relations between degree of risk aversion and equity distribution in different types of cooperatives.

Members (Principal)	Manager (Agent)	Equity Rights
Avoids risk	Avoids risk	Both parts demand fixed benefits without variable parts; there is no agent incentives in case of financial residual, which becomes unavailable.
Avoids risk	Risk neutral	The member demands fixed benefits, but the agent – professional executive – might appropriate a variable part. For example, the variable remuneration to directors and technical assistance staff.
Risk neutral	Avoids risk	Variable equity part appropriated by the principal – members – as incentive, while the professional executives – agents – prefer the traditional arrangement.
Risk neutral	Risk neutral	Without fixed parts or benefits, and variable compensation distributed as incentive to both, principal and agent.

The case of risk neutral situation is its opposite and could already happen, for example, in the case of New Generation Cooperatives, where contractual incentives are based on variable earning revenue to both principal and agent (BIALOSKORSKI NETO, 2004). The intermediate situations might also happen, but the risk neutrality might come from the *agents* – professional executives –, who would accept a significant variable part for their compensation as incentives for their efforts, since they are not guarantors for the financial operations. Otherwise, this characteristic might not be ideal for cooperatives due to possible noxious efforts of risk neutral executives towards cooperative members; an example could be the case of commissioned technical assistance which might encourage the use of unnecessary resources by the cooperative members, associates, and agricultural producers.

Therefore, the situation where both *principal* and *agent* avoid risks is the most common and needs control tools and monitoring processes to incite the *agent* to act according to the *principal's* interest.

3 MANAGEMENT MODELS AND TYPOLOGY

When applying these concepts to corporate governance, and if manager's role and responsibility are well known by the parties, an institutional analysis also shows that the main cooperative doctrinaire principles have a direct influence in the success of the organization (BIALOSKORSKI NETO, 2004):

- The democracy principle demands high transactional costs due to decisions being taken in general assembly and councils meetings, sometimes complex and conflictive.
- The equality principle – one member, one vote – directly implies in high agency costs due to a lack of directness and focus in cooperative's economical and business activities.
- The principles of solidarity and proportionality of result distribution according to each one's operations sometimes turn it impossible for a member to observe clearly its own property rights over the cooperative, and do not permit a perception of the member as an investor, leading to high agency and transactional costs.

Such problems and characteristics of cooperative organizations reflect the need for better corporate governance parameters to improve economic efficiency and to incite the professionalization of the management executive body.

Every governance problems described above occur due to the organizational architecture and doctrinaire principles of the cooperatives; however, besides these limitations,

it is possible to find cooperatives with different governance and professionalization adjustments.

In Brazil, it is possible to classify their management models twofold, according to the professionalization degree, and the link between ownership and control. Each model can be analyzed according to its agency problems and transaction costs to design a typology regarding the corporate governance and management models.

In the first management model, most frequent in Brazilian agricultural cooperatives, the members delegate power for strategic decisions to an administrative council, most of the times composed by an elected group from themselves, i.e. agricultural producers-not professionalized managers. This board of directors, more than a forum for strategic decisions and for management monitoring, also becomes responsible for the executive management of the cooperative. Other workers – hired managers – have little decision autonomy and respond directly to the board of directors. In this model, the president of the board of directors (chairman) is also the cooperative CEO; he is called as the *president of the cooperative*.

The second management model appears in some cases in large agribusiness cooperatives, but less frequently. It is characterized by a hired-professional superintendent or general manager – CEO – who is responsible for the general management of the cooperative; she/he also intermediates the contact between the board of directors and the employee personnel. Most of the times this executive has autonomy for tactic decisions regarding the organization strategies, as well as participate on strategic discussions; it is possible that at least part of his compensation is proportional to the results achieved. This is the model called “professional management” in Brazil. In this model the president of the cooperative is the president of the board of directors (chairman), and the CEO is a hired-professional manager.

The first model has typical governance problems, where the professionally-unprepared board of directors has insufficient knowledge to prepare efficient business policies or to take value-creating strategic decisions. This model could also induce a situation where the *agent* – the cooperative member with chairman and CEO roles – is also the *principal*; in other words, he is both a cooperative member and someone interested in the business's strategic success. Otherwise, in this case nothing prevents the *principal* from using asymmetric and privileged information for his own success.

The second model has the classic agency problem – between the members as the *principal* and the CEO as the *agent* – which can be minimized using proper management control systems and information flows. But, since the professional manager – CEO – might be unaware of the cooperative member's reality, as well as the members might also be unaware of the cooperative's administrative reality, in such cases, monitoring costs by the members are higher than the perceived benefits of the monitoring process. The opportunity costs of participation is high and consequently it is important to reduce information asymmetry and agency cost in the process.

In this way, management information systems are fundamental for reducing agency costs and information asymmetry in both cases. In the first, it improves the decision making process by providing decoded information to the members non-professionalized board of directors, and prevents the use of privileged information by them.

In the second model, such management system is important to provide members with a better control over the risk neutral professional-manager's procedures and to homogenize risk acceptance criteria.

4 MANAGEMENT CONTROL SYSTEMS AND INFORMATION ASYMMETRY

Utility of a management control system and level of managers' satisfaction with them are associated with the effective discharge of their duties. Atkinson, Kaplan and Young (2004) highlight four organizational functions of management accounting:

- operational control - measurement of information related to efficiency and quality of tasks performed;
- costing of the product and the customer - measurement of costs (resources) related to production, sale and delivery of products or services to customers;
- administrative control - provision of information related to the performance of managers and operating units; and
- strategic control - measurement of financial performance and long-term competitiveness, analysis of market conditions, preferences and choices of customers and technological innovations.

However, management accounting has been criticized for not being able to fulfill its objectives. Some authors criticize accounting data for not being a reliable source of information for businesses performance analysis (BRACKER; PEARSON, 1986, p. 505; PEEL; BRIDGE, 1998, p. 853) or to subsidize strategic planning processes because, as Mintzberg, Ahlstrand and Lampel (2004, p. 60) claim, factual information like managerial accountability information...

[...] frequently has a limited scope, richness gaps and most of the times does not include important non-economic and non-quantitative factors;

[...] is over aggregated to be efficiently used in strategic planning;

[...] arrives too late to be used in strategic planning; and

[...] most of it is untrustworthy.

DeLone and McLean (1992) present an in depth model based on user's individual analysis with six different taxonomy success categories which contribute to the effectiveness of information systems: system quality, information quality, information system usage, user satisfaction, individual impact, and organizational impact. Seddon (1997) deliberates about this model proposing other relations and opposing the previous idea of information system usage as a proxy to the benefits generated by users, introducing the behavioral information system usage category. His model considers three different variables: system quality and information measures, information systems usage of general net profit measures and behavior related to information system usage (RAI; LANG; WELKER, 2002).

DeLone and McLean (1992)'s model considers that one user voluntarily uses the information system, while Seddon's model considers that its usage is both a voluntary and an involuntary choice. Rai, Lang and Welker (2002) consider the semi-voluntary information system usage as a presupposition, given the fact that the manager's job description defines tasks and responsibilities but say nothing whether it will be done using information systems or not, letting each one identify alternative methods to perform them. However, some tasks might be strictly information-system dependent, giving the user no alternative methods to carry them out (GOODHUE; THOMPSON, 1995).

From an economic perspective, it can be stated the following premises: (1) actors (users) have unique knowledge, skills, interests and preferences, and that creates a commitment of common activities within an organization, thus requiring coordination and supervision of activities undertaken by individuals; (2) an individual decision making is subject to bounded rationality, since agents are savers with limited knowledge (RESE, 2003, p. 102; FREZATTI; AGUIAR; REZENDE, 2006)

Speklé (2001) proposed a model addressing the description of management information systems variation based on transaction costs theory. Such approach has been used to explain discrete governance structures, notably organization of transactions via market, hierarchy or hybrid forms (WILLIAMSON, 1996), and can also be used to describe management information systems, also discretely varying.

For instance, in management control systems such theoretical arrangement can be understood as different efficient solutions to contractual incentive problems that appear when

hiring or controlling an organizational architecture. The agent's efforts and contributions to the organizational results are also functions of managerial monitoring and control structures put together to maximize economic efficiency.

Together with the description of discrete governance structures based on characterizing variables, the author suggests three variables to differentiate managerial control structures: a) previous uncertainty level about the desired effort, b) human asset specificity level of resources involved in the processes and, c) the impact intensity of the information available after the agency's effort (SPEKLÉ, 2001).

The agent's uncertainty about the efforts and contributions desired by the organization to accomplish the objectives exists due to the possibility of planning the effort previously. In that case, given the impossibility of planning the desired effort previously, it is mandatory that the organization have monitoring flexibility to allow contractual adaptations to unpredictable events.

Regarding the asset human resources specificity level involved in the process, it is related to possible value loss due to allocating these resources in different alternatives than the previously designated ones, similar to the view on economic transactions costs. Therefore, for the view on management control systems' structure, the resources involved are individual competencies allocated to organizational tasks.

The third variable refers to the effort result impact on contractual relations by comparing real performance to previously defined organizational objectives. This variable must be specially considered when it is impossible to previously plan the effort; in other words, when there is a high uncertainty level related to individual agent's efforts. Such uncertainty must disappear as the activities are being performed and the perception of contribution performance becomes clearer. In some situations, however, this information continues having a high organizational impact due to its specialized nature or impossibility of protecting them from its owner's opportunism. In such cases, management control mechanisms that would normally be used to try to guarantee the realization of the *desirable* contributions will then be used to prevent *undesirable* contributions.

Table 2 describes some characteristics of management control systems regarding levels of uncertainty and human assets specificity. There are different information systems and managerial needs to each combination of the previously described variables. For example, low uncertainty with high ability to plan agent's efforts previously, high human resources asset specificity and high information impact on monitoring agent's efforts would involve less complex but highly efficient management control systems (cell III). Otherwise, high uncertainty with low ability to plan agent's efforts previously, low human resources asset specificity with low information impact on monitoring agent's efforts would involve complex management control systems to gain some efficiency level (cell II).

Table 2. Management control systems classification according to human resources asset specificity and to the possibility to previously plan the activities and their uncertainty.

	Low uncertainty – High ability to plan the agent's efforts previously	High uncertainty – Low ability to plan the agent's efforts previously
Low human resources asset specificity (The resources can be reallocated and acquired in the market)	I-Management control system made by ex-post information with high impact to agents.	II-Clear Management control with precise ex-ante information and complex monitoring.
High human resources asset specificity (The resources cannot be reallocated and are trained internally)	III-Management control system made by ex-post information with low impact to agents. Can generate opportunistic attitudes by agents.	IV-Clear Management control with ex-ante information, complex monitoring, hierarchical precise information and high information efficiency to monitor and avoid opportunistic attitudes by agents.

5 COOPERATIVES AND MANAGEMENT CONTROL SYSTEMS

The previous discussion about management control systems efficiency also applies to cooperative organizations. The specific Situation A presented in Figure 1 is true for them, the general assembly and the board of directors – the members themselves – having the *principal's* role and the professional-managers – superintendents or general manager – having the *agent's* role to act on behalf of the members' best interests.

As suggested in the corporate management model typology section, it is possible to classify agricultural cooperative's management model in two different ways, according to its contracted *principal-agent* relationship. Uncertainty, resource specificity and impact of available information on the agent's contribution must be analyzed to suggest the best control structure in each model.

In the first model, the general assembly elects and empowers a non-professionalized board of directors so they will take strategic and tactic business decisions on its behalf. The second model has the superintendent's role, a professional manager hired in the market – CEO – who is responsible for tactic business decisions, but shares strategic decisions' responsibility with the elected board of directors.

Beginning with the uncertainty characteristic, it is possible to verify that in all models it is impossible to plan in advance the manager's contribution, irrespective of her/him being an elected member-manager or a hired professional-manager, since their main contribution is through strategic and tactic decisions that lack previous deductible information. Therefore, in every contractual models discussed before the control structures are based on a low ability to plan the agent's efforts previously, resulting in contractual relations strongly based on mutual confidence and commitment with vague desired contribution limits.

The manager's contribution for achieving the desired objectives focus on the resource levels involved. The main manager's resources are individually-allocated competences, specially knowledge and management skills. As suggested by Speklé (SPEKLÉ, 2001)(2001, p. 428), “low asset specificity implies that the desired contribution is of a general purpose kind, not involving assets that are tailored to the organization”. In that way, “such contributions are likely to be governed by the market mechanism”. That might be the professional-manager situation in the second model, since they were hired in the market, but possibly this situation has not happen in the first model, where there are some specificity in the competencies allocated by members elected to the board – even though they are not professionalized.

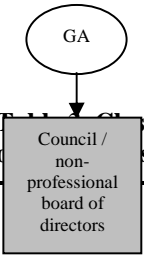
Unpredictable situations will also demand decisions, even with an insufficient knowledge about the course of actions that can lead to better results. In such cases, the decisions will be taken based on available information which in turn will generate new information derived from such decisions that will allow new decisions to lead to the desired objectives.

The information disperses in an asymmetric and powerful way through the organization, precluding any sole individual from having all information made available. From the management control perspective, the challenge in such cases ends up to completely disseminate corporate performance information in real time. That is, in situations of high uncertainty and high resource specificity, the organization will minimize the high impact condition of information. Compiling the described characteristics of the two verified models in cooperatives, and based on the previously stated variables, it is possible to compound the Table 3.

6 SURVEY AND CASE STUDIES

Table 2 and Table 3 show that each organizational architecture present in cooperative organizations could involve an specific management system in order to maximize organizational efficiency, control, and management methods.

Classification of essential information systems attributes and management models in cooperative

Model	Human resources asset specificity	Agents risk aversion	Uncertainty (information asymmetry between Principal and Agent)	Unpredictability (operations' predictability to achieve the cooperative's objectives)	Post hoc information impact
 <p>GA Council / non-professional board of directors</p>	High. Frequently not professionalized elected board of directors might not be replaced without significant costs. (+)	Producers highly averse to risk (+++)	Low asymmetry. The producers are principal and agent at the same time (+)	High due to lack of professionalization and predictable actions, since the members are agents and principals in the same relation (+++)	low information impact due to the possibility of not replacing the board of directors easily (+)
M2	Low. The hired professional can be substituted, but not without losing experience (-)	Risk neutral professional (-)	High information asymmetry and possibility of high agency costs (+++)	Low, due to professionalization and predictable agent monitoring efforts (+)	High information impact (+++)

Considering credit cooperatives in Brazil, according to Brazilian Central Bank, 70,1% of them elect directors with executive functions including salary – M1 model, and another 29,5% hire executives – M2 model. In 78,5% of the cooperatives, the president elected is also the president of the executive board; ²/₃ of all cooperatives have no managerial instruments to evaluate the performance of the administrative council, fiscal council, and executive directors (VENTURA; FONTES FILHO; SOARES, 2009). The same survey shows that in 63,6% of all cooperative the members do not associate in the cooperative willing for the economic advantages, as well as in 31,9% they associate for the social networking and associative bonds.

Table 4 shows which management control systems are expected for each kind of cooperative management model and which economic incentives are more efficient to the agents.

These two different management models were identified in rural credit cooperatives in the Minas Gerais State, Brazil. An on-line questionnaire was created for a survey with them; it included 90 questions about the cooperative identification, amount of members, assets and financial numbers, considerations about the board of directors, functions of the members, presidency, presidency of the board, educational level, presence of hired executives, and about the existence of financial incentives to the president, board members, executives and other professionals. Moreover, detailed questions about management systems characteristics, including informational flows, kind of information, management instruments like cash flows, budgeting, statements etc. Some questions were on an evaluation scale from 1 to 5 to measure variability.

Cooperatives were chosen for an initial analysis, which should be similar in the cooperative business area, similar in the amount of members and the financial size. Table 5 shows these cooperatives' characteristics.

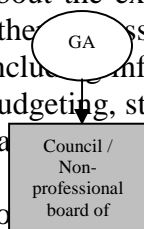


Table 4. Classification of managerial information systems characteristics and expected management models in cooperative organizations.

Superintendent model	Management control systems characteristics	Results and incentives appropriation
M1	Management control system composed of ex-post information with high impact in agents	Demand for fixed benefits without variable parts; no agent incentive in case of equity, which becomes unallocated.
M2	Clear management control system with precise ex-ante information and complex monitoring.	The member demands fixed benefits, but the agent – cooperative professional – might appropriate a variable part, like variable remuneration.

Table 5. Credit cooperatives sample survey selected data, in 2009.

Cooperatives	Agribusiness system core	Assets in Thousands USD	Number of cooperative members	Number of Employees	Number of elected council members	Number of elected directors	Number of professionals executives
M1 Coop A	Dairy and Grains	\$ 12,105.26	1,874	15	6	3	0
M1 Coop B	Dairy	\$ 10,308.02	1,777	24	6	3	0
M1 Coop C	Dairy and Grains	\$ 7,067.39	1,716	22	5	3	0
M2 Coop D	Dairy and Grains	\$ 23,860.26	4,619	57	6	3	3
M2 Coop E	Dairy and Grains	\$ 14,136.16	2,071	22	6	3	1

Cooperatives	Level of employees professional autonomy	If there are professional executives salary incentives	If the management System is able to control the Employees	If the decision process is centralized	Kind of monthly information	Kind of semi-annual information	Kind of information not used
M1 Coop A	No	No	Yes (5)	No (2)	BS and Others	FD	
M1 Coop B	Relatively	No	Yes (4)	No (1)	Others Inform	FD and BS	
M1 Coop C	No	No	Yes (4)	No (2)	Others Inform	FD and BS	
M2 Coop D	Relatively	No	No (2)	Yes (5)	Others Inform	FD and BS	Cash Flow
M2 Coop E	No	No	No (1)	Yes (5)	FD and Others	B. Sheet	Cash Flow

(scale 1 bad to 5 good) (scale 1 bad to 5 good)

BS - Balance Sheet / FD
- Financial demonstratives/ OI-
Others information

Source: Survey

All of these cooperatives have activities either only in dairy products or in dairy and grain products. The size of the five cooperatives was approximately 7 up to 23 million of Dollars in assets, middle size rural credit cooperatives, and 1.7 to 4.6 thousands of members each one. With these numbers, it is possible to consider these cooperatives similar in size and to compare them as a sample.

Because the questionnaire was very detailed, only some questions are important to analyze differences and similarities between management models, and are more significant to this discussion.

An important characteristic was that all cooperatives classified as M1 model, where the board members are also management executives, used the strategy of putting from 90% up to 100% of their financial results in non divisible funds, therefore showing high risk aversion behavior. Only one M1 cooperative, where the rural producer board members showed a low educational level, mentioned other forms of result distribution to the cooperative members and presented a high level of self-interest in management and not with the organization, but that was an isolated case.

All surveyed cooperatives, regardless the management models, said that they had no variable-part compensation such as contractual incentive for the professional-manager or for the board members. Thus, there were no financial incentives for the professional-manager for achieving goals, differently from what the management systems and agency theories appoint as good solutions.

In terms of autonomy of the hired professionals and employees, for all cooperatives it was said that they had no autonomy or had only little autonomy, and showed high concern with business control and managerial systems with ex-ante informational control. In this managerial system, an ex-post control for the professionals' goals have not appeared, so it tended to pursue more ex-ante controls than flexible business practices with ex-post goals controls.

All M2 cooperatives, with a hired professional executive, agreed that the managerial systems were simple and not adjusted to the cooperative, and also that the informational monitoring process did not control the cooperatives' activities, and did not facilitate the informational process. These answers show that executive professionals are probably strict about management systems and monitoring and control activities.

On the other hand, all M1 cooperatives agreed on this matter, that the process was able to monitor and create informational ways. In this case the answers showed that the board members and the members with executive functions had no problems or further demands about the management systems and felt that, probably, there could be information and control in other ways.

Another similar attitude is about the centralized decisions in cooperatives' management body. All M2 cooperatives agreed that the decision process is highly centralized on the board members and required more flexibility and activity independence for the professional executives.

Because of the managerial systems, like cash flow, financial statements, budgeting etc., one characteristic is important: the cooperatives with M2 structure said that they did not use cash flow, like the M1 cooperatives, maybe because cash flow is a management system that permits time control, but is not the best instrument to permit ex-ante control. This result could show a control concern in the M2 structure, and an on-time administration in the M1 model.

All cooperatives said that management and information systems had no purpose to inform the member, but only the staff and management body. So, there was no concern by the managers to inform the members about the cooperative's performance.

There were no other particular characteristics in management instruments use and it was impossible to identify any characteristic inherent to one or another group due to managerial systems instruments.

For all other questions there was no common and particular answer among the groups in terms of the management model which could be relevant.

7 FINAL CONSIDERATIONS

Management control systems must support the monitoring action flow both minimizing information asymmetry and being efficient to support the *principal's* obligations. In other words, they must not only define the appropriate policy to accomplish organizational objectives and strategies but also give directions to organizational affairs, specially to *principals* that play supervision or monitoring roles.

In Brazil a national sample shows that more than 70% of all credit cooperatives are on the M1 model, with one rural producer elected and performing, at the same time, the roles of the cooperative's president, board's president, and one of the cooperative's executives.

Case studies show, and the answers for the questionnaire indicate, that the M2 model needs a clear management control system with precise ex-ante information and complex monitoring. On the other hand, the M1 model uses management instruments that permit on-time control and high risk aversion. Furthermore, the variable financial incentive for professionals or executives to achieve business goals does not exist in all models, contrary to the initial assumptions. The M1 model is the model with more self-interest of the members including result distribution in other forms.

Analyzing the managerial instruments in the management systems, the cash flow stands out as an important tool to control ex-post activities and is relevant to M1 cooperatives, but not to M2, which probably have a more efficient ex-ante control.

Also, it is possible to consider that, from a theoretical point of view, the producer-member of rural cooperatives needs information about his enterprise to monitor the board's and the executives' activities, but in all cases the cooperatives said that the rural producer-member was not a subject of the management systems function, or that it was not important for the cooperatives to inform the members adequately.

This way, all of the studied cooperatives said that the management systems were established not to give information to the members, but only to the board and executives. Maybe because of that this information might not be important to the members' daily activities, since around $\frac{2}{3}$ of the rural producers members do not pursue economic advantages to become an associate.

Finally, discussing the adequate management control system for each cooperative, identifying member's needs, increasing their involvement with the cooperative's routine and providing the best economic efficiency for the organization is very useful. This is an important agenda to further investigate since the cooperatives' relationship with their members is fundamental to increase their transactions fidelity.

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