

Allocation of property rights in emerging governance models of agricultural cooperatives in Mato Grosso do Sul: a comparative analysis with traditional cooperatives

Alocação de direito de propriedade em modelos emergentes de governança de cooperativas agropecuárias em Mato Grosso do Sul: uma análise comparativa com cooperativas tradicionais

Alessandra Hocayen da Silva¹ , Sílvia Morales de Queiroz Caleman¹ 

¹Universidade Federal de Mato Grosso do Sul (UFMS), Campo Grande (MS), Brasil. E-mails: lehocayen@yahoo.com.br; silviacaleman@gmail.com

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Abstract: The discussion about the governance of agricultural cooperatives has emphasized that a better allocation of property rights interferes with the competitiveness of this business model in the increasingly internationalized and deregulated market. This study seeks a greater deepening of the allocation of property rights in agricultural cooperatives in Mato Grosso do Sul/Brazil. The qualitative research was carried out in 4 agricultural cooperatives, two considered an emerging model and two traditional cooperatives. The investigation was conducted through the analysis of minutes of Ordinary General Meetings, statutes, and semi-structured interviews with managers and presidents. It was observed that the agricultural cooperatives, seen as an emerging model, where there is a selection of new members and act in a purchasing pool format, demonstrate an evolution concerning the traditional model by pointing to a greater professionalization of management, evidence of the separation between property and management. Moreover, the emerging model becomes more attractive than the traditional one by efficiently allocating the residual rights (earnings).

Keywords: agricultural cooperatives, property rights, emerging models.

Resumo: A discussão a respeito da governança de cooperativas agropecuárias tem enfatizado que uma melhor alocação dos direitos de propriedade interfere na competitividade desse modelo de negócio no mercado cada vez mais internacionalizado e desregulamentado. Esse estudo busca um maior aprofundamento da alocação do direito de propriedade em cooperativas agropecuárias de Mato Grosso do Sul/Brasil. A pesquisa de caráter qualitativo foi realizada em quatro cooperativas agropecuárias, duas consideradas modelo emergente e duas cooperativas tradicionais. A investigação foi conduzida por meio da análise de atas de Assembleias Gerais Ordinárias, estatutos e entrevistas semiestruturadas com gestores e presidentes. Observou-se que as cooperativas agropecuárias consideradas modelo emergente, em que há seleção de novos membros e que atuam no formato de *pool* de compras, demonstram evolução em relação ao modelo tradicional ao apontarem maior profissionalização da gestão, evidência da separação entre propriedade e gestão. Outrossim, o modelo emergente torna-se mais atrativo que o tradicional ao alocar o direito residual (sobras) dos membros de forma eficiente.

Palavras-chave: cooperativas agropecuárias, direito de propriedade, modelos emergentes.

1. Introduction

Agricultural cooperatives are collectively owned enterprises of rural producers who, in addition to owners, are the main users, whose governance is democratic, and the benefits are



distributed to members in proportion to the transactions carried out (Staatz, 1987). Over the last decades, agricultural cooperatives have adapted to survive the increasingly competitive market and respond to institutional changes (Chaddad & Iliopoulos, 2013). Since the 1990s, many studies have emerged focused on identifying and analyzing the success factors of new models of agricultural cooperatives, mainly models found in the United States and Canada. Chaddad & Cook (2004) suggest a typology of new models of cooperatives that aims at a better allocation of property rights by setting a more flexible capital structure.

The cooperatives, in addition to facing external changes, also find internal restrictions linked to the vague definition of property rights (Cook, 1995). These internal restrictions are related to investment and governance problems, impacting traditional cooperatives in the pursuit of maximum efficiency (Cook & Iliopoulos, 1998) against the competition with investor-oriented firms.

In the Brazilian context, the emerging of agricultural cooperatives in the Midwest of Brazil has some particularities. In contrast to the South of the country, a region where cooperatives are large-sized, in the Midwest, there is the creation of smaller cooperatives that are made up of large-scale producers interested in safeguarding the profit margin of their properties (Bialoskorski Neto, 2014; Chaddad, 2017).

In a study conducted by Chaddad (2017) in the state of Mato Grosso, we identified emerging models of agricultural cooperatives, which in the author's view, have similar characteristics to the New Generation Cooperatives (NGC). However, the author classified these emerging models as "extensions of the farm", whose purpose is the provision of service to the cooperative members to increase the profit margin of producers on the upstream side of the productive chain. The cooperatives depicted by the author have as main characteristics a selective policy for membership, provision of service through purchasing pool of inputs and, anticipated and proportional investment of members in the purchase of assets.

The theme of new cooperative models has been empirically studied by researchers from various regions around the world, either under the focus of cooperatives performance with different ownership characteristics (Downing et al., 2005; Kalogeras et al., 2013), innovations related to capital and property (Bijman et al., 2014) and success factors (Carlberg et al., 2006). However, the focus of international studies is on explaining the characteristics and success factors of cooperative models that add value to the production. In contrast, the study by Chaddad (2017) in Brazil sought to understand the characteristics of these emerging models in Mato Grosso from the point of view of the purpose of the organization. In this case, the author calls, a more "defensive" purpose, which seeks to generate a greater return to the rural business and not add value to the production. We observed the same aspect in Mato Grosso do Sul.

This research, aligned with the approach proposed by Chaddad (2017), aims to *analyze the allocation of property rights in emerging models of agricultural cooperatives in Mato Grosso do Sul*. Specifically, it is intended to comparatively evaluate the emerging and traditional models of agricultural cooperatives in Mato Grosso do Sul (MS) under the argument of the allocation of property rights.

Concerning the study of Chaddad (2017), it advances in the sense of recognizing how property rights are allocated in these emerging models. Furthermore, it attempts to highlight in what aspect the allocation of property rights in emerging models differs from the pattern observed in traditional cooperatives.

It is also important to highlight the relevance of the object of study. The contribution of the cooperative system to Brazilian agribusiness is fundamental since 48% of all agribusiness production in Brazil comes from agricultural cooperatives (Brasil, 2018) that together count for almost 50% of Brazil's agricultural Gross Domestic Product (GDP) (Organização das Cooperativas Brasileiras, 2018). Moreover, the central west region leads the country's agricultural production with an amount of R\$ 158.82 billion compared to R\$ 552 billion of national production (Brasil, 2019a). Its representativeness is also accentuated in agricultural exports, whose amount from January to September 2018 reached approximately R\$ 26.05 billion (Banco Central do Brasil, 2018).

In regional terms, the MS economy is also broadly founded on agribusiness, an activity that represents thirty percent (30%) of the State's GDP and increased 18.97% in exports in

2018 when compared to the previous year, generating approximately US\$ 5.692 billion (Mato Grosso do Sul, 2019). A survey by the Ministry of Agriculture, Livestock and Supply (MAPA) shows that twelve (12) out of the seventy-nine (79) cities of MS are among the one hundred (100) Brazilian largest cities producing agribusiness that lead the GDP growth (Brasil, 2019b). The agricultural cooperatives of MS represent 51% of the total cooperatives registered in the State, which has a total of 111 cooperatives in eleven branches of cooperativism (Sindicato e Organização das Cooperativas Brasileiras no Mato Grosso do Sul, 2018). The sector went from R\$ 6.64 billion in 2015 to R\$ 7.80 billion in 2017, generating a 17.5% increase in revenues.

This research is justified by the need for an in-depth of the emerging models of agricultural cooperatives that arise in the Brazilian central west since this organizational innovation has been a recurring solution for cooperation actions among rural producers in this region of the country.

The theoretical contribution is made by deepening the knowledge on the way property rights are allocated in emerging models of agricultural cooperatives that, when designed efficiently, potentially generate incentives for members to invest in the enterprise of which they own (Chaddad & Cook, 2004). Consequently, the business remains attractive to members and competitive in an increasingly internationalized and deregulated market (Nilsson, 1998; Cook & Chaddad, 2004).

This article is organized into six parts, including the introduction in which we sought to reveal elements that characterize the researched theme. In the second part, we present the literature review. The third part is the study methodology with a presentation of the procedures and methods of data collection and analysis. In the fourth part, we organized the results of the research, followed by the final considerations. At last, we showed the bibliographic references.

2. Property Rights

Property rights are studied by law, economics, and in recent decades have been discussed by the New Institutional Economics (NIE). Although the conception of property rights is similar in each field of study, the point of view is different in each approach concerning the social, organizational, and economic implications of the allocation of property rights. For both the economy and the law, the predominant concept of property rights is property seen as a bundle of rights over a resource, of which the owner has the power to remove third parties who intend to take possession or make use of that resource (Mueller, 2005).

The Neoclassical Economy treats property rights as safe, well-defined, as well as always respected. Based on this approach, the costs to secure and protect property rights are irrelevant (Mueller, 2005). Conversely, the NIE's discussion of property rights arises from the studies of Coase (1991) by stating that defining and protecting property rights in the "real world" is expensive.

Alchian & Demsetz (1972) broaden the discussion of the economics of property rights by relating them to the problems faced by the firm. The precursors of this discussion, which later culminated in the agency's theory, were Berle & Means (1984). They identified when there is a separation between property rights and the right of control, conflicts of interest arise. The principal-agent relationship occurs when the principal delegates tasks to the agent, under asymmetric information conditions, where the principal may not have the same quantity of information of the agent (Caleman & Zylbersztajn, 2011). The costs related to the agency relationship are i) Expenses of monitoring managers by shareholders; ii) Managers' expenses to maintain a close relationship with shareholders; and, iii) Residual losses of this relationship (Jensen & Meckling, 1976).

Regarding the separation between property and control, Fama & Jensen (1983) point out that the way the steps of the decision-making process are established is relevant to clarify the survival of the organizations. To this end, they present four steps of the decision-making process: initiation, ratification, implementation, and monitoring, and clarifies that the steps of initiation and implementation are assigned at the same agents, being classified as management decisions. Control decisions are defined by the steps of ratification and monitoring (Fama & Jensen, 1983). Also, when it comes to property rights in the company,

Hansmann (1988, 1996) states that the “owners of the firm” are individuals who have two formal rights: the right of control over the firm and the right to the residual, which is the right to appropriate the firm's profits or losses. This research is developed based on the definition and classification proposed by Hansmann (1988).

The residual right is linked to the company's net returns, whether current net profits, capital increase in assets, or even losses. Residual rights answer the question “how are costs and benefits allocated?”. They specify the benefits and payment obligations associated with the use of assets, for which incentive mechanisms are created for decision-makers. Topics such as payment methods, executive and board member compensation packages, and cost allocation are related to residual rights. Control rights answer the question “Who has the control?” They relate to decisions regarding the use of company assets and how decision-making agents will be monitored. They encompass all rights and rules related to the use of assets, specifying who coordinates the firm's activities, that is, who owns authority. Among other topics, there are issues related to authority allocation, among others, formal control versus authority, relational contracts, make or buy decisions, control decisions (ratification, monitoring), management decisions (initiation, implementation), task design, conflict resolution, and enforcement mechanisms (Hansmann, 1996; Baker et al., 2008).

Like investor-owned companies, cooperatives also face problems of property rights allocation. The following topic addresses the problems faced by agricultural cooperatives.

2.1. Allocation of Property Rights in Agricultural Cooperatives

A clear definition of property rights is not present in all organizations. In the case of traditional agricultural cooperatives, the problems of restricted property affect these organizations in achieving maximum efficiency (Cook & Iliopoulos, 1998). According to the authors, there is difficulty in investing in agricultural cooperatives because the acquisition of venture capital is limited to the number, wealth, and capacity of their members to bear risks. These organizations have restricted access to external sources of funding (Hart & Moore, 1996). Furthermore, there are also internal restrictions related to the governance of traditional agricultural cooperatives, due to vaguely defined property rights.

By traditional agricultural cooperative, this article assumes the organization that has an open association; property rights restricted to user members; absence of production delivery contract; non-transferable, non-appreciable, and redeemable residual rights; residual rights distributed in proportion to transactions and not to the invested capital (Cook & Iliopoulos, 2000; Chaddad & Iliopoulos, 2013).

Cook (1995) states that property rights in traditional agricultural cooperatives are loosely defined. In other words, the difficulty in accommodating the heterogeneity of interests (Valentinov & Iliopoulos, 2012) and the user versus investor relationship (Cook, 1995) leads to conflicts, especially as the security property structure becomes more complex.

Although the agency relationship in cooperatives is similar than in a company and related to the right of control, Bijman et al. (2013) list fundamental differences that should be considered when the Board of Directors (BoD) is the “principal” and the CEO is the “agent”: i) the double set of residual rights of members, as users and as owners; (ii) members formally participate in the cooperative's decision-making process, as they are elected to the Council; iii) owners of a company usually have uniform interests (profit), since the members of a cooperative can be heterogeneous in their interests, and; iv) cooperatives do not have an external regulatory body, such as listed companies, so the evaluation has to start from their own BoD. Agency costs also occur when there is a divergence of interest between “principal” members and the BoD “agent” (Cook, 1995; Cook & Iliopoulos, 1998; Iliopoulos, 2005).

Silva et al. (2011) explore the specific area of corporate governance in cooperative organizations, emphasizing its importance for reducing agency conflicts. The authors argue that the main source of conflicts in cooperatives is in the relationship between cooperative members and the board of directors.

At the same time, residual rights in a traditional agricultural cooperative cannot be transferred to people outside the organization. The redemption of the share capital usually occurs in the resignation of the cooperative member. This makes the cooperative less

attractive to the members' investment. Furthermore, the residual is distributed proportionally to the transactions and not concerning the invested capital (Cook & Iliopoulos, 2000; Chaddad & Iliopoulos, 2013).

In the Brazilian context, cooperatives are moving slowly towards property and capital innovations. This fact is due to the general law of Brazilian cooperatives, which still maintains in its essence much of the principles of cooperativism. Still, Brazilian law establishes a minimum governance structure, such as i) form of withdrawal of share capital; ii) a percentage of capital remuneration; iii) distribution of remaining earning; iv) one-man-one-vote principle; v) transfer of capital between members with the approval of the Assembly; vi) right to the use of assets; vi) right of formal control of the BoD; vii) delegation of management decisions to contracted professionals, and; viii) restriction of voting to the members of the BoD when the topic is brought to the Assembly (Brasil, 1971).

The survival and growth of agricultural cooperatives in response to the challenges of industrialization of agriculture depend on the efficiency of these organizations in seek for organizational innovations (Chaddad et al., 2005). In this sense, Cook & Iliopoulos (1998) suggest two organizational innovations that aim to minimize the impact of loosely defined property rights: new generation cooperatives and traditional cooperative redesign. These models differ in how property rights are defined and granted to players linked to cooperatives.

2.2. New Generation Cooperatives

When analyzing organizational design initiatives of agricultural cooperatives from different countries from the 1990s onwards, Chaddad & Cook (2004) presented a typology of emerging cooperative models that differ from the perspective of how property rights are defined and granted to players who are contractually linked to cooperatives, whether members or investors.

The so-called New Generation Cooperatives (NGC) emerged in the 1990s in the north of the United States and southern Canada bringing in their conception a more focused positioning for the market, in search of adding value to their products (Harris et al., 1996). This model introduces property rights in the form of delivery rights (Chaddad & Cook, 2004).

The main characteristics of NGCs are i) rigorous selection for the admission of new members; ii) establishment of contractual agreements for the delivery of the product, the so-called delivery rights; (iii) better-defined property rights with the possibility of trading share quotas; iv) flexibility in the principle of one-man-one-vote depending on the number of property rights acquired and, v) upfront investment of members in assets, proportionally to the use of them (Harris et al., 1996; Cook & Iliopoulos, 1998, 1999; Chaddad & Cook, 2004; Iliopoulos, 2005; Bialoskorski Neto, 2015).

Considering the NGC model, Bialoskorski Neto (2015) established three important points as pillars to reduce the disadvantages of the traditional cooperative model: i) the separation between property and control, through professionalization; (ii) better-defined property rights and; iii) monitoring, through external auditors. According to the author, this context provides a cooperative education work more focused on limit opportunism, stimulating greater participation of members in strategic decisions of the cooperative.

Aspects related to the participation of members and their impact on the performance of cooperatives (Bialoskorski Neto, 2007), as well as the topic of loyalty and opportunism, explored by Simioni et al. (2009), bring to light discussions related to the institutional environment in which these cooperative organizations are inserted. It is a fact that many practices used by NGCs in other countries are not applicable in Brazil due to the Brazilian institutional limitation, whose legislation is still very "Rochdalian" (Antoniali & Souki, 2005).

However, the NGC model aims of adding value to products, with great investment in assets. In other words, as called by Cook & Chaddad (2004), these cooperatives are formed with an offensive reason, focused on the market, opposite the main objective of the cooperatives identified in the Midwest of Brazil.

Based on these theoretical constructs and based on methodological procedures, elements of analysis were constructed to guide the steps from data collection to data analysis, which will be presented below.

3. Methodological Procedures

This research has a qualitative approach, which aims at understanding the origin, meaning, and consequences of certain organizational phenomena, without the concern of measuring the number of their occurrences (Vergara, 1998). In terms of purpose, it is classified as Exploratory and Descriptive. Exploratory, given that the theme of emerging models of cooperatives, in the format identified by Chaddad (2017), is recent, little discussed in the literature, and not yet explored in Mato Grosso do Sul. It is descriptive, considering that the study proposes to know deeply this occurrence, describing its characteristics.

To achieve the research objective, four cooperatives were intentionally selected that fit the “traditional” and “emerging” profiles as discussed by Chaddad (2017). For this selection, we had data provided by the technical analysts of OCB/MS (Union and Organization of Brazilian Cooperatives in Mato Grosso do Sul) and the availability and adherence of the cooperatives¹. Two of the traditional models and two of the emergent models were chosen, with the same type of production (grains and cotton).

Data collection was performed in two stages: documental analysis through statutes and minutes of meetings, followed by interviews with cooperative leaders. In total, we analyzed 18 (eighteen) minutes of Ordinary General Meetings of the cooperatives investigated. The interviews were guided by a semi-structured script. According to Richardson (2012), this technique aims to find the most relevant concepts of the participants on the subject analyzed.

Data analysis was performed through content analysis, based on Bardin (2011). Table 1 presents the research dimension, the theoretical and empirical variables (elements of analysis) created based on the literature.

TABLE 1. Dimensions, theoretical and empirical variables

Dimension	Theoretical variables	Empirical variables (analysis elements)
Property Rights	Control Rights	Suggestion and implementation of projects; Approval and Monitoring of projects; CEO autonomy; Activities of the BoD; Incentives for the CEO; Delegation of the vote; Disposal of assets.
	Residual Rights	Distribution of residuals, valorization of share capital, share redeemability, cooperative funds.

Source: Prepared by the authors.

The interviews were conducted in person between August and September 2018. In the case of emerging model cooperatives, the interviewees were the executives hired. In the case of traditional cooperatives, the presidents made a point of participating in the research. After that, there was a brief presentation of the cases, which are structured as follows: Cooperatives 1 and 2 are classified as emerging models and Cooperatives 3 and 4 as traditional models.

Cooperative 1 - Emerging model

Founded in 2005 by cotton producers from the north of MS, Cooperative 1 arose from the need of the farmers to sell their products. The motivation was the tax issue, considering that companies from other states are exempt from taxes when they buy from a legal entity of MS. With the reduction of cotton farming, the cooperative migrated to a purchasing pool of farm inputs. The 2017 revenue reached R\$ 98 million with the sale of cotton. Its “gate-in” activities generate the following sources of revenue: a percentage of 0.5% on cotton revenue and a fee of R\$ 5.00 per hectare planted by each rural producer. It has a workforce with only six employees. Since it does not add value to the production of the members, the cooperative does not have fixed assets. It holds a rented building and awaits the completion of an input warehouse coupled to its own headquarter. The social framework is composed of sixty-seven

¹ It is worth noting that the managers of the cooperatives participating in the research expressed interest in participating by signing a consent form.

(67) members distributed in twenty-five (25) family groups². The homogeneity of the group is evidenced by the similar size of the properties of the members, in the cultivated crops, and in the percentage of members (97%) who own their warehouse on their farms. The social framework of the model demonstrates the involvement of the members because all are active.

Cooperative 2 - Emerging model

It was constituted in 2004 by grain producers from southwestern MS. The initial idea of creating a purchasing pool came from a group of friends who were organized and decided to purchase agricultural inputs at scale. The cooperative is member-oriented, as it does not perform the next stages of production processing and given its revenue sources: i) monthly fee of R\$ 150.00; (ii) service charge of 1% on the gross amount transacted for inputs; (iii) brokerage fee of R\$ 0.10 per bag; (iv) a risk rate of 0.04% on the price of the product; (v) financial investments income; and (vi) rebate program³.

It is important to note that the rebate program is not an accounting value in the cooperative's cash. However, the CEO considers it as a source of income, because the accumulation of credits with suppliers allows the cooperative to obtain benefits in fixed assets and specialized consultancies, paid by the dealers. In 2017, revenues reached R\$ 210 million. Currently, it has one hundred and thirteen (113) members distributed in forty-five (45) family groups, all active members. Its team has twenty-one (21) professionals. The members plant soybean and corn, which demonstrate the homogeneity of the membership. Since there is no added value, the cooperative does not have fixed assets.

Cooperative 3 - Traditional model

In 1978, Cooperative 3 was born in the southern region of MS. Founded by cotton farmers, the motivation arose from the dissatisfaction of the rural producers in MS when they belonged to an agricultural cooperative of Paraná (PR) whose warehouse was in MS. The headquarter in PR went through a coffee crisis and the warehouse in MS practically bore all the expenses of the cooperative. Thus, the farmers requested the dismemberment of the MS warehouse and as the proposal was not accepted, twenty-seven cotton growers of MS decided to leave the cooperative. The revenue of Cooperative 3 is related to the following services provided: i) receiving, drying, and storage of grains; ii) cottonseed processing and industrialization of 100% of cotton yarn; iii) cassava root processing and cassava starch production; iv) technical assistance and projects of irrigation; v) resale of inputs. In this context, industrial activities denote how market-oriented Cooperative 3 is. In 2017, the cooperative's revenue reached R\$1 billion. To manage this structure, the cooperative has five hundred employees. The membership base has a total of a thousand and nine (1,009) members, but only half (500) are active. Moreover, we can affirm that the membership is heterogeneous. Most members plant soybean and corn, but some plant only cassava, those who grow cotton and, those who will not invest in fish farming – a new investment project.

Cooperative 4 - Traditional model

Cooperative 4 was formed in 1995. Located in the South-Central region of MS, it arose from the dissatisfaction of rural producers who were part of a singular cooperative linked to the Cotia Cooperative. When Cotia presented problems and began the dissolution phase, the producers of MS tried to dismember from the headquarter. The proposal was not accepted and a group of producers decided to leave the cooperative linked to Cotia and created Cooperative 4. The 2017 revenue reached R\$ 45 million and is based on the following services: i) receiving, drying, standardization, and storage of grains; ii) marketing of soybean and corn; iii) resale of inputs and, iv) processing and crushing of corn residues. Cooperative 4 currently has twenty-five employees who work in their own cooperative headquarter. About the

² The Emerging Model of agricultural cooperatives in MS segments the members into groups, according to family ties.

³ Rebate: It is a relationship program, where points or discounts are exchanged for fixed assets or services.

membership base, only 100 members, out of 142, are active. However, Cooperative 4 demonstrates homogeneity among members, as the members are small agricultural producers and 98% grow soybean and corn. Uniformity is also at the age of the members, where two-thirds are over 65 years old. Table 2 below shows the synthesis of the main characteristics of the cases investigated.

TABLE 2. General characteristics of cases

	Founded in	Member-ship base	Family groups	Average hectare/member	Activities	Origin	Interview
Coop 1	2005	67	25	4.500	Cotton sale and input purchase.	Purchase group	CEO
Coop 2	2004	113	45	971	Soybean and corn sales; and input purchase.	Purchase group	CEO
Coop 3	1978	1009	-	500	Receiving, drying, and storage of grains; soybean and corn sales; cotton ginning and spinning; cassava root processing and starch production; assistance and projects of irrigation; technical assistance; and resale of inputs.	A splinter group from another cooperative	President
Coop 4	1995	142	-	100	Receiving, drying, and standardization of grains; soybean and corn sales; corn residue processing for animal feed; technical assistance; and input resale.	A splinter group from another cooperative	President

Source: Survey data (2018)

4. Results

Through comparative analysis, this topic aims to answer the aforementioned research problem. First, the cases of emerging models of agricultural cooperatives are presented, followed by cases of traditional models. In the end, the comparative analysis of the cases is added.

Cooperative 1 (control rights)

The control of the members is in the right to vote in person at the Assembly, there is no vote by a delegation. However, since it is not possible to guarantee that the members who live more than fifty kilometers away from the cooperative office attend the assemblies, the cooperative holds preparatory clarification meetings. The statute makes it clear that these meetings have no decision-making power.

The Executive Board (EB) is the highest body in the administrative hierarchy. When analyzing the statute, it is evident the delegation of control from the members to the elected members of the EB, according to Art. 45:

Art. 45. The Executive Board is the superior body in the administrative hierarchy, and it is its private and exclusive responsibility for the decision on any matters of economic or social order, of interest to the Cooperative or its members, under the terms of the law, these bylaws and deliberations of the General Assembly (Coop1 Statute, 2013 - Chapter VI).

In corroboration of the statute, CEO 1 states that even decisions on leasing and disposal of assets are delegated to EB.

The Executive Board has the power. Every assembly is approved like this. Every year it is given to the Executive Board the power to alienate, to seek funding. It is renewed annually (CEO 1).

The activities carried out by the EB by a delegation of the Assembly are bureaucratic matters related to payment authorizations. Elected members spend, on average, one hour a week in the cooperative.

He's got his own business, which isn't small, to look after. So, is he following it? Yes, he is. Is he there? Yes, he is. But he can't manage it (CEO 1).

Thus, management decisions are delegated by the EB to the General Manager, a professional hired with remuneration established by the EB. Therefore, the elected members have no involvement in the routine activities of the organization.

I do the administrative management part, right? The whole administrative bit here is mine. The purchase bit. The sales bit. [...] We have meetings. They are quarterly meetings by the requirement of the statute (CEO 1).

According to the CEO, in addition to administrative actions, management activities of the warehouse building work have been attributed to him in the last two years. This fact presents conformity concerning the decision-making process established by Fama and Jensen (1983). Above all, the idea of the warehouse was suggested by him.

The suggestion of this project itself. The one that is in progress there (warehouse) and that is the biggest. [...] When I came in here, I made the suggestion. I made the suggestion due to the producers' needs, right? I saw that when I was on the other side when I was in the industry. And due to the industry needs too. When I was there, the difficulty we had with the producer. [...] And then it (the project) went to Board, the Board accepted it and took to EB and then to the other members (CEO 1).

Regarding the approval and monitoring steps, CEO 1 states that approval happens via EB and that monitoring of warehouse construction takes place informally via messaging application. However, the formal report is held at the EB quarterly meetings. The interviewee declares that he has the autonomy to manage the cooperative. However, in cases of admission and dismissal, he prefers to share this decision with the EB.

When it comes to gratification for achieving goals or any other financial incentive that can reduce agency costs, CEO 1 states that the issue has already been on the agenda, but has not become a practice.

Cooperative 2 (Control rights)

The Board of Directors (BoD) is the superior administrative body of Cooperative 2 and until 2014, it was managed by the BoD. However, the elected members no longer occupy the function of the main executive. The interviewee was hired as Executive Director, whose remuneration is established by the BoD. Thus, management activities are managed by the Executive Director. However, there are decisions at the macro level that are taken and shared with the BoD. Besides, other decisions that are considered administrative, such as admission or dismissal are also often shared by the CEO.

I have complete autonomy. [...] I like to always share with managers. If it is from the manager's sector, I call the manager or he brings it (the decision). [...] From the Director to the BoD, I usually take it to the BoD. Also, share with them (CEO 2).

According to the CEO, the routine activities that the BoD carries out are demands for payment release. The BoD members spend two hours weekly on routines activities at the cooperative.

CEO 2 is increasingly responsible for the strategic part of the business. Currently, there are managers directly linked to him as an outcome of investment in people management and processes. This fact denotes a higher level of professionalization.

More and more I do less operational. [...] We didn't use to do professional management work. [...] Today, here, everyone has its function, each one knows that someone will start

an action, someone will stop this action, and from here to there, it will be taken to another department and that department will work on this issue until it reaches a final situation (CEO 2).

Regarding the bonus for meeting goals or other incentives, CEO 2 states that the cooperative does not yet have this practice, but studies have been developed to find ways to implement it.

As for the decision stages, in disagreement with what the literature recommends, new projects are usually suggested by members of the BoD. However, the implementation stage is carried out by the executive team.

We're the ones who run it. It is from the Executive Board to the Managers. And then the departments monitor it. It depends a lot, usually the administrative area, the employees themselves. There is a report for the owners, and then it goes to the board meetings (CEO 2).

According to the established in the theory, the stages of approval and monitoring of the projects are carried out by the BoD, using a delegation of the Assembly. In the CEO's view, converging the approval and monitoring stages on the BoD, turn decision making more flexible.

For approval, the BoD has autonomy. It was even a clause that we changed because before we had to take it to the Assembly and it was very complicated. We were in that boom of rebates and we needed to put a consultancy. Then we had to wait until April, so we decided to remove this clause (CEO 2).

Regarding the right to vote, it is exercised only by the members present in the Assembly. Voting by delegation is not allowed.

Cooperative 3 (Control rights)

The President of Cooperative 3 states that there is no delegation of voting; however, the cooperative Statute establishes the vote by delegation:

Art. 44 When the members are located in distant places, more than 50 km (fifty kilometers) away of the headquarter (Law 5.764/71 Art. 42 § 4º) it is allowed, in the General Assemblies, the representation by a delegate, who has the quality of cooperative member in the enjoyment of his rights and does not exercise an elective role in the society (Coop Statute 3, 2016 - Chapter IX).

When questioned, the President declares that in the past the membership base was more numerous and there were regional branches. However, the practice has been currently discontinued and not removed from the statute, a fact that shows the misalignment between document and practice and presents management vulnerability.

Cooperative 3 supreme administrative body is the BoD. According to the interviewee, the elected members do not hold a main executive role. It is shared by two contracted professionals, an Administrative/Financial Manager and a New Business and Operations Manager.

The President states that managers have the same powers and are "peers" in the cooperative. The Administrative Manager is responsible for financial activities, human resources, and information technology. On the other hand, new business projects and demands from the industry are allocated to the New Business Manager. Even with two hired professionals to manage the cooperative, the president declares that in the case of employee resignation, if it is a senior employee, the BoD is asked.

Let's put it this way if you've been with us for 20 years, 25 years, then they come to ask a question. [...] They're people with 20 and 25 years of work in the cooperative, and you just wanna know why. [...] But they've got autonomy in daily tasks. We do not interfere with that (President 3).

According to the interviewee, his position as president is political, as he has the role of representing the cooperative in internal and external events. However, when asked about his time weekly spent in the cooperative, it makes clear his involvement in management activities.

[...] It was expected that I would spend half a day in the cooperative and then I would go and run my activity. But honestly, that's impossible because sometimes we have an afternoon meeting. Sometimes this meeting is early morning. Then it ends up taking your entire time. We can say, three days a week. If you put it all together, in the end, I've got two days off (President 3).

The time spent by the elected member in the cooperative denotes that management activities are part of the president's routine. This fact is in disagreement with the theory about the separation between property and control teaches.

Regarding new projects, the interviewee states that ideas usually are brought up by any members. From the demand of the members, the BoD requests feasibility studies to the New Business team. If the project is approved, the New Business sector takes the necessary measures to hire specialized staff.

Some members went on a trip and spotted something. [...] Just like a fish, for example. The fish farming came out of a visit that we made to Paraná and noticed the potential it's got in our region. [...] Give this to the New Business team, and they chase the viability, participate in fish seminars, and then you realize how big that business can be [...] And then we take it to the BoD already with some viability or not (President 3).

The Statute provides that for the ratification stage, the BoD has a delegation to approve investment of up to twenty percent (20%) of the existent balance in the Development Fund of the last general balance sheet. From this amount, they need the Assembly approval to acquire or dispose immovable properties and make investments. The monitoring follows the recommendations of the theory. The managers report the progress of projects in monthly meetings of the BoD.

[...] Now we have the Amandina unit that is been built. So, every monthly meeting the New Business Manager has to take there, and if it is something more specific, he brings there the person responsible for the construction to detail it. If someone wants it even more detailed, he details it (President 3).

Currently, Cooperative 3 establishes a fixed salary for managers. However, a profit-sharing plan of this cooperative is under analysis. If approved, it will cover all employees.

Cooperative 4 (Control rights)

The statute of Cooperative 4 provides the delegation of the power from the General Assembly to the BoD. According to the interviewee, the governance model implemented in 2014, had the figure of an Executive Director, a hired professional who had the role of managing the cooperative. Yet, in 2016 he resigned from the cooperative, and with that, the president began to stay longer in the cooperative. The professional, responsible for the financial area, was promoted to Executive Director to replace him. But neither the BoD nor the professional himself had the conviction that he was able to assume this role. However, in the BoD's view, he was the most qualified professional at that time.

The financial and administrative manager, he was "kind of" promoted, he did not want to assume himself as Executive Director [...] the I found myself having to spend more time in the cooperative ...to help him, right? Unfortunately, nowadays, part of my day I spend here. I "end up" staying here the entire morning. I have my own business, but I forced myself to spend more time here (President 4).

According to the president, twenty hours is spent weekly by him in the cooperative. He states that there are daily issues to sort out, as well as payment authorizations. In addition to him, the Managing Director is also at the cooperative a few days a week. Regarding admission

and resignation, the president ensures that the manager has autonomy but recognizes that by the leadership style, the CEO will always consult the BoD.

About CEO remuneration, the BoD has the autonomy to decide it. The interviewee points out that the manager was responsible for implementing a methodology of positions and salaries in the cooperative. However, the CEO's salary does not include any kind of incentive.

Cooperative 4 has building land for the construction of a new warehouse and hired a company to design the project. Yet, members are often involved in the decision-making stages of this new investment.

The idea came out within the BoD. Actually, because all members know that this is necessary because we don't have a structure of our own. [...] The BoD has got involved in this, right? Although we give many attributions to the Administrative Manager, the project analysis, the design, the ideas, and so on, we do not leave under the responsibility of the executive area staff. We also try to participate, especially in this search for a way to finance this venture, right? [...] So in fact, due to the size of our cooperative, basically everybody ends up getting involved (President 4).

The approval phase of the project goes through the assembly. However, the monitoring of the project will be the responsibility of the executive team what demonstrates that the implementation and monitoring phases will be performed by the same people, a fact that goes against what the literature recommends. In matters related to the disposal of assets, the BoD has the autonomy to approve it. As an example, a property was used as a guarantee in 2012.

Then we stretched out our debt payments. Even we're still paying for it. And then at that moment, this building, for example, was given as financial collateral for this financial operation. That did not have to be decided in Assembly. The BoD has this autonomy (President 4).

The next topic complements the analysis of cases by presenting the allocation of residual rights in emerging models and traditional models of agricultural cooperatives.

Cooperative 1 (Residual rights)

Despite being in the Statute that at the end of the fiscal year, if there are residuals, it may apply up to 12% interest per year in the member's capital, CEO 1 states that there is no remuneration of the paid-in capital in the Cooperative 1. This fact makes the cooperative less attractive for the members' investment, given the considerable monetary value charged at the time of admission (R\$ 50.000,00).

Regarding the return of the share capital, either by resignation or estate, the CEO affirms that cases were previous paid in full on exit.

You can't break the cooperative to return a share to the farmer. Of those who left, it (the payment) was all promptly. Also because, the value when the cooperative started was not considerable, the share- capital was R\$1,000 (CEO 1).

The distribution of residuals in the emerging models investigated in Mato Grosso do Sul takes place anticipatedly, which means at the time of the input purchase because the discount the cooperative negotiates with the suppliers is transferred integrally to the rural producer. Thus, when there is a residual at the end of the financial year, it is usually fully paid-up.

They've been all paid-up. Also, there are times when you would get a hundred, two hundred... there was a year we got four hundred thousand reais. We're gonna split the thing; we get such a little money to each one. [...] The cooperative man himself says: I can't do anything with that, then leave it for any time you need to use it (CEO 1).

In this respect, the model becomes attractive to the cooperative member because the member does not have to wait until the end of the financial year for the cooperative's accounts to be approved and distribute the profits. The practice of immediate "distribution" encourages the member to carry out more transactions via a cooperative.

The current funds in Cooperative 1 are required by law. The Reserve Fund has a percentage of 10% and the Technical, Educational and Social Assistance Fund (FATES), in 5%.

Cooperative 2 (Residual rights)

Cooperative 2 pays the share-capital of its members based on the savings rate. That denotes a concern in being attractive to the investment of the members. In CEO 2's view, it is a member's right to have their capital raised.

In the event of a member's resignation, the refund of the share-capital follows the procedures established in the statute. Despite knowing the possibilities allowed by law, Cooperative 2 makes the full refund.

Once approved, we then make an immediate refund. We have no obligation to do this and have already consulted this in the OCB. There're a lot of cooperatives that tie it up or maybe due to the guy has a massive share-capital. Maybe we get a cash flow problem. As in our case in a way, the quota is small, we do via BoD [...] We invite the audit committee, approve it in minutes and make the refund promptly (CEO 2).

Since its foundation, there has been no distribution of residuals in Cooperative 2. Part of the profits is allocated into funds constituted under existing legislation, the remainder is paid in the capital of the cooperative.

There was never a return⁴. [...] 2017 financial year had almost R\$ 8 million reais in profits. Now, understand this: profits, that's an accounting move here in our business, okay? Because much of the financial profits are tax assets that are ICMS credit. That's not money, okay? How much of 7 million is part of cash? I believe about 2,5 million. [...] So it pays-in (CEO 2).

Regarding the funds, the CEO states that they are only those required by law. Until 2014, there was the allocation of 75% of the residuals to the funds, of which 60% was to the Development Fund. When the CEO assumed the role, the obligation to allocate residuals to this fund was altered.

Cooperative 3 (Residual rights)

In cooperative 3, the practice of valuing the invested capital is according to the annual rate of the savings account, plus one percentage point (1%). Also, an unusual and attractive practice was identified.

When a member turns 65, we give him back 30% on his birthday, and those who have been members for 20 years, 10%. So, it's like savings for him. [...] It's like stock in a company. But it is capitalizing within the cooperative. It is a resource that the cooperative uses as working capital until we give it back to someone (President 3).

In case of resignation or loss, the capital refund depends on the amount to be withdrawn from the cooperative. According to the President, this amount is usually paid in full.

About residual, they are currently paid-in as reported by the President.

While the cooperative is in the development phase, it is growing, and the member is seeing that it is reinvesting its profits. We are putting it in assembly, but asking to pay-in the capital (President 3).

In addition to the funds required by law, Cooperative 3 currently maintains a Development Fund consisting of sixty percent (60%) of the residual. Until 1998, 35% of the residual was moving to the Development Fund. After the Farming Production Cooperatives Revitalization Program (RECOOP)⁵, the amount going to this fund rose to 60% of the residual to use this amount to pay off installment debts.

⁴ The interviewee used the word "return" in reference to the residual distribution.

⁵ In 1998, the Federal Government launched RECOOP, making approximately R\$ 3 billion available to banks to refinance the sector's debts (Sindicato e Organização das Cooperativas do Estado do Paraná, 2019).

The debt with the Federal Government has already been paid off. In this case, it seems unfeasible to maintain a fund with a high percentage of the residual. However, the President states that this money is often used in new business.

[...] some consultants are saying to review this part of the Development Fund. This fund still exists at 60%. [...] We're studying to change the Statute because of this (President 3).

One of the BoD's concerns is the case of possible incorporation of Cooperative 3 by another larger cooperative. The board is concerned that the amount of the Development Fund will not be divided among the members, and its destination would be the National Treasury. However, the cooperative law in its Art. 4, provides for the indivisibility only of legal funds, which does not apply to this case.

Cooperative 4 (Residual rights)

Cooperative 4 also does not remunerate the share capital of the members. Besides, in case of return of capital by resignation, the President states that there is a cap for returning it promptly. But for estate cases (decease), it is paid in full.

Years ago, a family group of members decided to leave the cooperative, but they imagined that they would take all the share, right? [...] I was part of the Fiscal Council, and at the time, the Board of Directors was not paying attention to these things, and they were to pay the share promptly. Then we from the FC said: No. We took the Statute and we discussed it in a meeting. [...] Today, above ten thousand reais of capital, we set the payment in four or three annual installments, usually three installments. (President 4).

As reported by the President, Cooperative 4 has the practice of offering competitive prices to its members and fair payment conditions. Working thereby the cooperative does not have a considerable amount of residual at the end of the fiscal year.

What do we say to our members? What do you prefer? We work more offensively now, generating residual to then return that to you, theoretically, if there are profits at the end of the year? Or, do things in a way that benefits you all year round, and have a little profits in the end? [...] So the profits, surely there are profits, but it is an amount that will not sort anyone's life out, so much so that in recent years, all the residual is being added to the capital and is stays here (President 4).

The President makes it clear that even if the Assembly decides to share the residual, the BoD has established internally that the distribution is not carried out in cash but in products from the store. Regarding the funds, it follows what is established in the legislation. However, Cooperative 4 also provides for twenty percent (20%) of residual to the Development Fund.

4.1. Comparative Analysis of Cases

Regarding the control rights, it is important to take into consideration the working hours of the elected members in cooperatives, according to Table 3. At first, in emerging models, the delegation of management decisions works indeed. Given that, a maximum of two hours per week is dedicated by the BoD for payment release. Antagonistically, traditional cooperatives have an average of twenty working hours per week spent by the BoD in administrative assignments with the CEOs. This fact, in Costa (2010) and Costa et al.'s (2012a, 2012b) view, may affect the delegation of management decisions to the CEO if all this time is spent on routine activities.

Another matter was the decision-making steps established by Fama and Jensen (1983). In that sense, we noticed that even the emerging models, whose management is more professionalized, it was difficult to establish in practice who should be in charge of each stage of the project. As an example, in Cooperative 1, the monitoring stage was fragile when it was performed frequently through messaging. In Cooperative 4, the BoD is involved in all decision-making stages.

The cases researched also presented a fragile governance framework about incentives for CEOs, given that the lack of incentive makes it more difficult to ensure that the CEO is aligned with the objectives of the owners and pursue the highest expected return by the proprietors (Alchian & Demsetz, 1972).

TABLE 3. Comparative synthesis of the control rights

Control Rights	Emerging model		Traditional model	
	COOP 1	COOP 2	COOP 3	COOP 4
Weekly working hours of the elected members	1 hour	2 hours	24 hours	20 hours
Incentives for the CEO	No	No (under study)	No (under study)	No
Project suggestions	CEO	BoD	BoD	BoD
Project implementation	CEO	CEO	CEO	BoD
Project ratification	EB	BoD	BoD up to the ceiling	Assembly
Project monitoring	EB	BoD	BoD	BoD

Source: Survey data (2018)

Regarding the residual rights, although the remuneration of the capital is legitimate, two interviewees stated that they do not have this practice in their cooperatives. What draws more attention is the case of Cooperative 1, because it requires a considerable amount as a membership fee and by not remunerating the capital, it proves not to be an appealing investment option for the members. On the other hand, the Cooperative 3 practice related to the refund of part of the members' social capital at specific times (65 years old or 20 years of association), demonstrates the concern of a traditional cooperative in retaining members and creating incentives for their investment⁶.

The amount of residual allocated to the Development Fund in traditional cooperatives reveals how unattractive this model can be. Regarding Cooperative 3, there is a residual number of millions of reais that is no longer spread out to members, a situation that corroborates the statement of Coltrain et al. (2000) that cooperatives of traditional models retain a high percentage of residual that could be distributed to the members. However, the "anticipation of residuals", a term commonly designated by the associated producers of emerging model cooperatives, generates incentives for members to invest in the cooperative.

The concept of "anticipation of residuals" should not be related to the distribution of monthly residuals. By stating that the residuals are distributed in advance throughout the year, the producers mean that the strategy of the cooperative is the total transference of discounts on inputs to members. This process begins with a survey of the members' requirements, then the cooperative goes to the market and negotiates. Thereafter, the negotiated discount is passed on entirely to the members, i.e. there is no margin of the cooperative in this transaction. Even using this practice, the emerging model usually closes the fiscal year with residual, which in the view of the members do not represent much when compared to the volume negotiated throughout the year. Table 4 provides a summary of the residual right.

⁶ In this respect, it is important to emphasize that when refunding the share capital, it becomes the liability of the cooperative and not its net assets. This theme is the basis of intense discussion since it impacts the accounting regulations of agricultural cooperative societies. Furthermore, this decision will reflect the maintenance of the cooperative and should be carefully examined by the leaders of the cooperatives.

TABLE 4. Comparative summary of the residual rights

Residual rights	Emerging model		Traditional model	
	COOP 1	COOP 2	COOP 3	COOP 4
Remuneration of capital	Does not pay	Percentage of saving account	Percentage of saving account + 1%	Does not pay
Capital refund	Promptly	Promptly	Promptly	Installments
Residual distribution	Beforehand	Beforehand	At the end of the fiscal year	At the end of the fiscal year
Development Fund	-	-	60%	20%

Source: Survey data (2018)

5. Final Considerations

The research sought to explore how property rights are allocated in emerging models of agricultural cooperatives in Mato Grosso do Sul. From this general objective, the final considerations are presented.

Regarding the allocation of property rights, the emerging model studied in Mato Grosso do Sul presented evolution compared to traditional ones concerning the detachment between property and management. However, there is an opportunity for improvement in the stage of monitoring CEOs by elected members, bearing in mind that there is no incentive to align the objectives of the executives with the interests of the owners.

Concerning residual rights, the emerging model is efficient and attractive to members as it distributes residual "in advance". This strategy creates a value perceived by the members immediately, without the need to wait for the end of the fiscal year and for the calculation of the residual to receive what they own by right. However, they lose attractiveness by not valuing the members' share capital, a fact observed in Cooperative 1. On the flip side, Cooperative 3 shows that it is contrary to what is commonly found in traditional models by refunding part of the members' share capital. This practice provides incentives for greater members' investment.

The theoretical contribution of the study was based on a greater knowledge about how property rights are allocated in emerging models of agricultural cooperatives in MS since the literature relates the clear definition of property rights to economic efficiency (Costa et al., 2012a, 2012b) and survival of organizations. Besides, the study complements the exploratory research of Chaddad (2017) in the Brazilian central west by examining with a lens more focused on the property structure of emerging models of agricultural cooperatives.

Empirically, the research contributes to a greater understanding of organizational innovation that has emerged in the central west of Brazil. A region that contributes significantly to the Brazilian agribusiness and has increasingly sought cooperativism as a business model. From the managerial point of view, the study has as implications the importance of understanding how these new cooperatives are been formed and the strategy used by them to achieve the objective of the members. The need to evaluate to what extent adding value to the member's production brings the expected return to it because it was observed that the expected return of members can be achieved by working competitively "gate-in".

We suggest future research a more comprehensive investigation contemplating case studies of emerging models in other states of the central west and Brazil. By doing this, it will be possible to draw an overview of agricultural cooperatives of emerging models found in the country.

It is important to highlight that during the field research, we identified the first case of dissolution of an emerging model cooperative, which emerged at the same time, and the city in which Cooperative 1 was created. Thus, an investigation and in-depth analysis of which organizational failures led this model to dissolve prove relevant. Finally, it is reinforced the need for an examination of the life cycle of cooperatives related to the phenomenon of emerging models of cooperatives in Brazil.

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