

STIMULI AND RESTRICTIONS ON THE IMPLEMENTATION OF THE PRINCIPLE OF INTERCOOPERATION

ESTÍMULOS E RESTRIÇÕES À IMPLEMENTAÇÃO DO PRINCÍPIO DE INTERCOOPERAÇÃO

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ABSTRACT

The study aimed to identify the elements that make up intercooperation, as well as the aspects that encourage or restrict the achievement of such relationships. Qualitative research was accomplished through data collected by semi-structured interviews carried out with seventeen cooperatives located in Brazil and Spain. For the execution of the interviews, the Content Validity Coefficient method, proposed by Hernandez-Nieto (2002), was used. To analyze the data collected, the content analysis technique was used. Fourteen categories of intercooperation were identified, involving horizontal, vertical, single-sector and multi-sector dimensions. It was found that the greater the degree of integration involved in the intercooperative relationship, the more expressive the need for informal control mechanisms. There is an inverted U-shaped relationship between the formality of control mechanisms and the sharing of resources between cooperatives. Furthermore, the reputation of the cooperative positively influences intercooperation. The principle of intercooperation is categorized, in addition, the research provides empirical evidence on the attributes that encourage or constrain the achievement of inter-cooperative relationships. It was suggested that cooperatives expand their participation in closed networks of relationships, as well as value reciprocity actions and maximize their reputation with other cooperatives. Such actions will maximize the social capital of cooperative and, consequently, will positively influence the scope of intercooperative relations. The research contributes to expanding the specific knowledge through the identification of fourteen categories of intercooperation. Furthermore, the study is carried out in countries with different degrees of maturity in cooperativism (Brazil and Spain).

Keywords: Intercooperation; Cooperation between cooperatives; Cooperatives; Principles; Social capital.

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Resumo

O estudo objetivou identificar os elementos que compõem a intercooperação, bem como os aspectos que favorecem ou restringem a realização de tais relações. Foi realizada pesquisa qualitativa, por meio de dados coletados através de entrevistas semiestruturadas realizadas com dezessete cooperativas localizadas no Brasil e na Espanha. Para a execução das entrevistas, foi utilizado o método do Coeficiente de Validade de Conteúdo, proposto por Hernandez-Nieto (2002). Para analisar os dados coletados, foi utilizada a técnica de análise de conteúdo. Foram identificadas 14 categorias de intercooperação, envolvendo dimensões horizontal, vertical, unissetorial e multissetorial. Constatou-se que quanto maior o grau de integração envolvido na relação intercooperativa, mais expressiva é a necessidade de mecanismos informais de controle. Existe uma relação em forma de U invertido entre a formalidade dos mecanismos de controle e o compartilhamento de recursos entre as cooperativas. Além disso, a reputação da cooperativa influencia positivamente a intercooperação. O princípio da intercooperação é categorizado, além disso, a pesquisa fornece evidências empíricas sobre os atributos que incentivam ou restringem a realização de relacionamentos intercooperativos. Foi sugerido que as cooperativas ampliem sua participação em redes fechadas de relacionamentos, assim como valorizem ações de reciprocidade e maximizem sua reputação junto a outras cooperativas. Tais ações maximizarão o capital social da cooperativa e, consequentemente, influenciarão positivamente o alcance das relações intercooperativas. A pesquisa contribui para a ampliação do campo de conhecimento, por meio da identificação de quatorze categorias de intercooperação. Além disso, o estudo é realizado em países com diferentes graus de maturidade no cooperativismo (Brasil e Espanha).

Palavras-chave: Intercooperação; Cooperação entre cooperativas; Cooperativas; Princípios; Capital social.

INTRODUCTION

Cooperative organizations, which are configured as an interorganizational network involving different actors that make up the cooperative (Sergaki, 2010), can also be characterized as an interorganizational network at a different analytical level, that is, at the level of relations between cooperatives. In this sense, these (intercooperative) relationships can be constituted as a formal cooperation network (Paré, 2010), from the creation of a new centralizing organization, such as, for example, 2nd or 3rd degree cooperatives, with the function of centralize common activities, purchase inputs collectively (to obtain greater economies of scale), or even effect the sharing of resources, brands, etc. Furthermore, these intercooperative relationships can be characterized as a network of connections not necessarily

integrated into a centralizing organization, thus configuring itself as an interorganizational network linked to the concept of Thorelli (1986), that is, the long-term relationships between two or more organizations.

Therefore, intercooperation can consist of formal, informal links, with or without equity interest. Thus, based on the concept presented by Leite (1982), parallel to the definition given by the International Cooperative Alliance (ICA), it is understood that cooperation between cooperatives, also called intercooperation, refers to the bonds and work carried out jointly between cooperatives, through local, national, regional, and international structures. It should be noted that in intercooperative relationships there are links that require further advances in the relationships undertaken; this is because, as pointed out by Paré (2010), the participation of cooperatives in higher-degree units (which is mostly configured with corporate participation), is framed as an advanced stage of intercooperation.

The literature on interorganizational relationships suggests that cooperation is manifested towards competitive gains, in which two or more organizations recognize the possibility of jointly achieving results and gains that could not be obtained in isolation (Balestrin; Verschoore, 2016; Dyer; Singh, 1998; Ong *et al.*, 2022). Furthermore, relational aspects can restrict the achievement of interorganizational cooperation, such as opportunistic behavior and information asymmetry, which incurs an increase in transaction costs. Thus, forms of coordination of economic activities that involve informal control mechanisms, such as reciprocity, trust and reputation, are relevant means to expand the possible achievements of cooperative relationships, especially in relationships that are not based on hierarchical links, like intercooperative relationships.

Although previous studies have investigated cooperation in the context of companies and cooperatives (Tremblay *et al.*, 2019), as well as the importance of the principles of cooperativism (Oczkowski *et al.*, 2013), the relevance of trust and reciprocity (Pesämaa *et al.*, 2013), the role of networks in the competitiveness of cooperatives (Sergaki, 2010) and key factors for the development of 2nd grade cooperatives (Boccatonda *et al.*, 2019), there are research gaps regarding the market image, the relevance of reputation and credibility generated by intercooperation (Mendina *et al.*, 2019) and, furthermore, on the influence of cooperation on the interorganizational relations of operating organizations in a business network (Martins

et al., 2017).

Therefore, this study aims to identify the elements that make up intercooperation, as well as the aspects that encourage or restrict the achievement of such cooperative relationships. In this way, the study contributes with conceptual and managerial applications for academics, professionals and decision-making bodies. Firstly, this research will be beneficial for researchers investigating cooperative management and principles, because it nourishes the current literature on the dimensions and categories that integrate intercooperation, as well as the elements that influence or constrain cooperative actions. Second, the theoretical design and empirical evidence provide a basis for future studies on intercooperation, identifying variables that make up the aforementioned construct. Third, research can be extremely valuable in facilitating cooperative actions, which can favor the sharing of resources, as well as innovation and the value-adding capacity of cooperatives.

This article is structured into five topics. The following topic presents a theoretical review of the evolution of intercooperation, and the different dimensions involved; moreover, the incentives and restrictions to cooperation between cooperatives are theoretically analyzed. Then, the research classification and the methodological procedures for collecting and analyzing empirical data are presented. In the subsequent topic, the results and discussions of the research findings are presented. Finally, presents the conclusions of the study.

THEORETICAL BACKGROUND

According to Fauquet (1949) the intercooperative relationships specifically related to the links between cooperatives of different segments and functions, not covering, therefore, cooperatives in the same sector. Furthermore, Desroche (1969) specified the concept of intercooperation involving the operationalization of various forms of joint actions, based on the existence of related objectives between the cooperatives involved. In addition to these concepts, Leite (1982) expands the scope of intercooperative relationships, integrating the bonds between cooperatives in the same segment, as well as between first-degree and higher-degree cooperatives; in addition, the author integrates cooperation between cooperatives at local, regional, national and international levels. Thus, based on interpretation of Leite (1982),

intercooperation is linked to every relationship between cooperatives, even if occasional relationships.

In addition, intercooperation was conceptualized by Meliá and Igual (2008) as involving deliberate actions carried out by two or more cooperatives to coordinate their interdependencies, linking themselves beyond their hierarchical or market relationships. Parallel to this understanding, Lago and Silva (2012) understand that these relationships are revealed in mutual help actions between cooperatives to effectively increase competitiveness and preserve the survival of both. Pachón (2015), in turn, covers all coordination relationships between cooperatives, with no direct subordination relationships and without the suppression of legal personality, in order to have mutual economic or social benefits, either in a structured way, such as cooperatives of second degree, or unstructured forms such as agreements or temporary bonds. Furthermore, Mendina *et al.* (2019) state that intercooperation is linked to the execution of actions that generate reciprocal benefits for the achievement of competitive advantages for the formed network and for its members.

Therefore, based on the evolution of the understanding of what intercooperation is, it is understood that this refers to the links operationalized between two or more cooperatives, without hierarchical linkages, and which generate reciprocal advantages, either through a formal structure, such as second-degree cooperatives, or direct relationships between cooperatives, eg business partnerships or joint work. This concept is in line with what was expressed in the most recent revision of the ICA principles (1995), which states in its 6th principle (Cooperation between cooperatives), that "cooperatives serve their members more effectively and strengthen the cooperative movement, working together through local, national, regional and international structures". Consequently, the concept of intercooperation adopted in this study is linked to the definition of Leite (1982) in parallel with the principle expressed by the ICA, covering cooperative relationships vertically, horizontally and between cooperatives from different sectors and geographic ranges.

In this sense, intercooperation can take place horizontally, in which a cooperative maintains links with others of the same level, for example, commercial relationships, or joint work between 1st degree cooperatives (Mendina *et al.*, 2019; Sergaki, 2010). Furthermore, intercooperation can be undertaken vertically, in which a cooperative is related to a 2nd degree cooperative, for example, integrating

agricultural production through a central cooperative (Boccatonda *et al.*, 2019; Božić *et al.*, 2019; Pachón, 2015). In addition, there may be an intercooperative relationship between cooperatives in the same sector, as well as between cooperatives from different segments (Leite, 1982; Lago; Silva, 2012). Thus, by integrating horizontal and vertical relationships in parallel with uni- and multi-sectoral relationships, based on the study by Leite (1982), intercooperation can be classified into four dimensions, namely:

- i) **Single-sector horizontal intercooperation:** cooperation between two or more cooperatives of the same grid and the same segment;
- ii) **Single-sector vertical intercooperation:** singular cooperative maintains links, generally economic, with higher grade cooperatives in the same segment;
- iii) **Horizontal multi-sector intercooperation:** cooperation between two or more cooperatives of the same degree and distinct segments;
- iv) **Multi-sector vertical intercooperation:** singular cooperative maintains links, generally economic, with higher-level cooperatives from different segments.

The table below (Table 1) illustrates the set of dimensions of intercooperation.

Table 1. Dimensions of Inter-cooperation

		Segment	
		Equivalent	Different
Degree	Equivalent	Single-sector horizontal intercooperation	Horizontal multi-sector intercooperation
	Different	Single-sector vertical intercooperation	Multi-sector vertical intercooperation

Source: Elaborated by the authors, based on the study by Leite (1982).

It should be emphasized that in all the dimensions presented above, intercooperation can take place at the local, regional, or international level.

At this point, it is necessary to specify the modalities of intercooperation expressed in the literature; thus, in Table 2, the categories of intercooperation actions

identified in studies on cooperativism are presented.

Table 2. Intercooperation Categories

Categories	Sources
1. Supply of product/service to cooperatives	(Božić <i>et al.</i> , 2019; Milk, 1982; Mendina <i>et al.</i> , 2019; Pachón, 2015)
2. Purchase of product/service from cooperatives	(Božić <i>et al.</i> , 2019; Milk, 1982)
3. Jointly made sale	(Boccatonda <i>et al.</i> , 2019; Božić <i>et al.</i> , 2019; Milk, 1982; Mendina <i>et al.</i> , 2019; Pachón, 2015)
4. Jointly made purchase	(Boccatonda <i>et al.</i> , 2019; Božić <i>et al.</i> , 2019; Milk, 1982; Mendina <i>et al.</i> , 2019; Pachón, 2015)
5. Jointly work done	(Alves <i>et al.</i> , 2019; Luo <i>et al.</i> , 2017; Sergaki, 2010)
6. Shared brand	(Boccatonda <i>et al.</i> , 2019; Mendina <i>et al.</i> , 2019; Sergaki, 2010)
7. Shared outreach	(Boccatonda <i>et al.</i> , 2019; Davis; Bialoskorski, 2010; Sergaki, 2010)
8. Shared physical resources	(Konzen <i>et al.</i> , 2015; Paré, 2010; Alves <i>et al.</i> , 2019; Mendina <i>et al.</i> , 2019; Pachón, 2015)
9. Shared human resources	(Paré, 2010)
10. Shared Knowledge	(Bialoskorski, 2012; Konzen <i>et al.</i> , 2015; Oczkowski <i>et al.</i> , 2013; Sergaki, 2010)
11. Shared financial resources	(Sergaki, 2010; Paré, 2010)
12. Equity interest	(Mendina <i>et al.</i> , 2019)

Source: Elaborated by the authors

It is emphasized that all these actions (Table 2) can occur in both dimensions of intercooperation presented in Table 1. Therefore, knowledge sharing, for example, can occur both between cooperatives of the same degree, as between a central and a singular cooperative. It is important to highlight that interorganizational cooperation, as emphasized by Balestrin and Verschoore (2016) and Ong *et al.* (2022), is practiced based on the relations between autonomous organizations with a view to achieving individual and collective objectives; therefore, organizations cooperate in order to obtain gains that cannot be obtained in isolation. Thus, as highlighted by Božić *et al.* (2019) and Lago and Silva (2012), this interorganizational cooperation action can enable cooperatives to increase their competitiveness in the face of market pressures and maximize their performance.

However, some aspects existing in interorganizational relationships can curb or enable the achievement of these relationships, such as opportunistic behavior, reputation, and trust. These aspects are derived from a paradoxical situation in

cooperative relationships, since in this context, as emphasized by Das and Teng (1998), organizations seek to obtain individual benefits and, at the same time, it is necessary that the alliances undertaken are also benefited; thus, when seeking the achievement of individual objectives, there is, eventually, the existence of opportunistic behavior, which would result in lower collective results, thus discouraging cooperative actions on the part of the other actors.

A similar situation was observed by researchers of game theory (Von Neumann; Morgenstern, 1953; Nash, 1950), in which strategic decisions related to the cooperative or non-cooperative interactions of the actors were analyzed, considering individual and/or collective advantages. In this perspective, non-cooperative actions of an actor can discourage cooperation on the part of the other actors, succeeding sub-optimal results for all involved. Thus, the extent to which both actors make a decision that benefits them, considering the optimal decision for the other actor, the so-called Nash Balance (Nash, 1950) takes place, resulting in a successful collective action. It should be noted, however, that cooperation tends to exist when actors interact in future situations; therefore, as emphasized by Balestrin and Verschoore (2016) and Yu *et al.* (2006), cooperation is sustained in continuous relations.

METHODOLOGY

The study is classified as an exploratory-descriptive research, carried out from the qualitative approach. Seventeen cooperatives located in Brazil and Spain were investigated. The choice of these countries is justified by the relevance for cooperativism, and, moreover, due to the distinct maturity existing between them with regards to the evolution of cooperativism.

As a way of analyzing diversified characteristics, cooperatives were studied that integrate different branches of activities, numbers of cooperative members and years of foundation. Thus, seven cooperatives investigated are part of the agricultural sector, four the labor segment, three the transport sector and three the credit segment. In addition, three cooperatives had their foundation established before the last 5 years, six between 5 and 15 years, three between 16 and 30 years, and five were founded in a period of more than thirty years.

The first cooperative founded on Latin America in 1902, an important Spanish cooperative group in the segment of work, reference in intercooperation actions, and a cooperative awarded with the Focus Business Award as the best newly created cooperative in Spain, integrated the present investigation. Moreover, one of the cooperatives surveyed is part of a plant that involves different segments of cooperativism, therefore a multisectoral vertical relationship. Thus, the executive director of this 2nd degree cooperative was also interviewed.

The empirical data collection process took place between August 2020 and February 2021 and involved conducting semi-structured interviews conducted with the presidents and/or directors of the selected cooperatives. All recorded in digital audio and transcribed. To conduct the interviews, a script was developed with issues related to aspects of intercooperative relations. Thus, two steps were performed for the development process and validity of the roadmap.

First, the elements that make up the intercooperation construct were defined through the literature review and, thus, the initial questions of the interview script were formulated. In a second stage, the Content Validity Coefficient (CVC) was used, presented by Hernandez-Nieto (2002), and, thus, the questions were sent to six academic judges, who evaluated the items that comprised the script with regards to language clarity, item relevance and theoretical relevance. In view of the judges' questions, the CVC was calculated for each question, as well as for the instrument with a whole.

Based on the results of the CVC, as well as the considerations presented by the judges, the interview script was partially reformulated. Thus, the CVC results for each question, as well as for the complete instrument, were higher than 0.8. Thus, based on the assumption presented by Hernandez-Nieto (2002) which considers acceptable validity greater than 0.80, the script used to conduct the interviews is presumed valid.

In addition to the information obtained through interviews, data from files and cooperative documents, International Cooperative Alliance legal framework (ICA), specific legislation of cooperative activities, manuals and information of the Organization of Brazilian Cooperatives (OCB System), documents obtained through websites or made available by the cooperatives interviewed were also investigated.

The data were analyzed using the content analysis technique proposed by

Bardin (2016), so the information was coded and categorized to enable the interpretation of the results. The Iramuteq software was used to support the analysis of the corpus of the transcribed interviews. The analytical technique of Descending Hierarchical Classification (CHD) was operationalized, which aims to categorize the collected data. Through content analysis, the construct "intercooperation" was investigated, which was classified into 14 categories, considering different levels of integration and formalization.

RESULTS

Based on the findings obtained through primary data collection, *ex post* categories linked to the intercooperation construct emerged. Thus, the following table shows the classes of intercooperation identified in the empirical study, considering *ex ante* and/or *ex post* categories that are related to the concept of intercooperation defined by Leite (1982) and ICA (1995). Thus, Table 3 is specified in the modalities of intercooperation identified in the horizontal, vertical, unisectoral and multisectoral dimensions.

Table 3. *Ex ante* and *ex post* categories of Intercooperation

Categories	Dimensions			
	1 Horizontal Single- sector	2 Vertical Single- sector	3 Horizontal Multi- sector	4 Vertical Multi- sector
<i>Ex ante</i>				
1. Product/service delivery to	●		●	
2. Purchase of product/service from	●		●	
3. Sale carried out together	●			
4. Jointly made purchase	●			
5. Joint work		●		●
6. Integrated brand		●		
7. Shared disclosure		●		
8. Sharing physical resources	●	●		●
9. Sharing human resources		●		●
10. Knowledge sharing	●	●	●	
11. Sharing of financial capital			●	
12. Equity interest		●		●
<i>Ex post</i>				
13. Contact sharing	●			
14. Altruistic support among			●	

Source: Elaborated by the authors from research data

The empirical evidence of the categories is presented in the Table 4.

Table 4. Empirical evidence of categories of Intercooperation

Dimensions	Categ.	Empirical Evidence
Horizontal Single- sector	1	We sell our products to these cooperatives. It is our commercial medium.
	1	Usually our customers are cooperatives, associations or informal groups that end up making purchases.
	2	We buy products from cooperative x.
	2	If we are going to do some production x, we look for cooperatives in this sector, which have inputs.
	3	The need for credit exceeded the capacity of the cooperatives, the two joined together to carry out.
	3	What the union of cooperatives intends is to manage all this so that the cooperatives can go out and sell. Making war alone makes no sense.
	4	If you get together with other cooperatives, there are orders that get better prices, because the order you place is much larger.
	8	The soy that we bought, we deliver to a silo of a cooperative.
	8	A cooperative partner of ours, if it participates and wins a bid for the delivery of inputs, for example, the cooperative has the logistics to do so.
	8	We exchange machinery [with other cooperatives].
	10	Cooperative x has a very good know-how that they gave me [information on a technology].
	10	We exchange information with people [from agricultural cooperatives]; exchange of experiences.
	10	I got in touch with a cooperative [...] and we started to exchange stickers of how she was doing at this time of pandemic.
	13	We organize these farmers so that they can make their production available, often through the cooperative or direct sales, much more through contact.
	13	We have a lot of staff difficulties. We talk to other cooperatives, there is an indication.
Vertical Single- sector	5	Through the central cooperative, we articulate and deliberate on matters related to operational and strategic matters.
	5	Through the confederation, all day-to-day operations of cooperatives and products are carried out in a shared manner.
	6	The cooperative is part of a system, the cooperative system x [which centralizes the trademark].
	7	It [2nd degree cooperative] centralizes marketing services.
	8	The [central cooperative] has a technological platform and an integrated management system.
	8	There are cooperatives from the same plant, even from other plants, orbiting in the same physical space.
	9	The central [...] centralizes accounting, controlling and a series of services. It has a team of accountants who serve the cooperatives that are part of it.
	10	If a cooperative had a very good performance in the, we learn about these good practices in these central meetings.
	10	It is very easy for us to exchange stickers [with central cooperatives].
	12	The singular [cooperatives] own the plant.
	12	The cooperatives [that are part of the central] are owners, we are partners.
	1	Employees' payroll and financing are being done with our cooperative.

Horizontal Multi-sector	1	We have clients that are public companies, private clients and cooperatives.
	1	We are one more supplier for them [cooperatives]; we compete with other service providers.
	2	If you have to look for transport services, we prefer the cooperative.
	2	The health and dental plans belong to cooperatives x and y.
	10	This management method comes from a relationship that we have with the cooperative x.
	11	The funding for the [agricultural] activities is being done in the credit union.
	11	The cooperative needed resources to finance cattle feed [...]; the credit union financed the producers of that cooperative.
	14	They [agricultural and health cooperatives] do the selective collection and send them to our cooperative and also help with the acquisition of the voluntary collection point.
	14	The transport cooperative that donated basic food baskets to my people.
	14	A cooperative [...] was experiencing financial difficulties [...], so we offered an advisory work [...] to correct these directions in relation to management.
Vertical Multi-sector	5	The center cooperative works with the administration of all integrated cooperatives.
	8	We work with three systems that we are trying to unify to generate less work.
	9	The administrative has six people to take care of all [integrated cooperatives].
	12	There is a division of profits [leftovers from the central cooperative] among the associated cooperatives, which are partners.

Source: Elaborated by the authors from research data

As presented at Tables 3 and 4, all elements of *ex ante* categorized intercooperation in preliminary studies related to cooperativism were empirically identified. In addition, two *ex post* categories emerged from empirical research, namely: sharing of contacts and altruistic support among cooperatives.

The first *ex post* category is linked to the actions performed between cooperatives with regards to indications of companies, cooperatives and/or people who can support their activities. The second *ex post* category (altruistic support between cooperatives) is related to actions performed by cooperatives for social and/or organizational support carried out with cooperatives in a context of deprivation, thus these altruistic actions, as highlighted by Tremblay *et al.* (2019), it is the cooperation with net costs for the actor, therefore, without waiting for a direct compensation from the beneficiary. Palazzo *et al.* (2017) had highlighted the importance of cooperatives for the development of society; however, the finding of the present research particularizes their role of social responsibility specifically with cooperatives.

It was possible to identify that certain categories of intercooperative relations were more expressively linked to specific dimensions of intercooperation. Thus, it was

observed that relations with greater integration between cooperatives (e.g., integrated brand and corporate participation) were more expressively related to vertical interactions, since these, as pointed out by Paré (2010), are an advanced stage of intercooperation, thus, a greater link between the objectives of the cooperative is required and a greater perception of the benefits from this relationship.

Therefore, the greater the degree of integration of the intercooperative relationship, the more expressive the need for a history of successful relationships between the cooperatives involved, thus enhancing trust in the relationship. In addition, the relevance of other informal control mechanisms, such as reputation and reciprocity, is maximized; which minimizes the possibility of opportunistic behaviors and influences actors to make decisions that benefit the collective, resulting in Nash's balance.

Relationships of altruistic support (small degree of integration) require minimal control mechanisms (due to the possibility of rapid interruption of these actions in case of inappropriate behavior), in addition, the buying and selling relationships between cooperatives require formal control mechanisms, such as the legal contract (which can be terminated or there is possibility of legal dispute).

The sharing of knowledge and other resources between cooperatives requires both formal and informal control mechanisms, because, even if there is a positive relationship between formal control mechanisms and the transfer of resources (Luo *et al.*, 2017; Yu *et al.*, 2006), at some point, due to limited rationality, there is an incidence of aspects that cannot be explicit in contracts, expanding the need for informal control mechanisms.

The findings led us to posit the following propositions (P):

P1a: The greater the degree of integration involved in the intercooperative relationship, the more expressive the need for informal control mechanisms.

P1b: There is an inverted U-shaped relationship between the formality of control mechanisms and the sharing of resources between cooperatives.

It was observed that the reputation and history of the cooperative is one of the main factors that influence the achievement of cooperative relationships, as can be seen in the following excerpts from the interviews:

“Through the visits we receive to learn about our cooperative's history and management model, cooperatives take everything they see here. They listen to the story that they can exemplify with something from their cooperative and in this exchange of similar practices we can also evolve.”

“Our cooperative is highly regarded in terms of innovation, which is why the other cooperatives seek a lot.”

In addition, it was identified that opportunistic behavior is one of the main factors that prevent the achievement of intercooperative relations, which was observed in the speech of two presidents of cooperatives:

“I tried many years ago to sit with the presidency of cooperative x, but politically it did not work, because they have that question: you are secretary who works there, a new line of milk collection comes up, then you buy the truck and put it in the cooperative.”

“As a matter of political gambling the cooperatives themselves do not intercooperation.”

In this sense, the sociological approach to social capital, especially the studies of Bourdieu (1986), Coleman (1988), Granovetter (1985), Putnam (1993) and Wulandhari *et al.* (2022), can elucidate and broaden the understanding of the achievement and maintenance of intercooperation. According to them, social capital, which is linked to the resources accessed by an actor through its relationships, is composed of social obligations that can become economic capital, conferring on those actors who hold it, credit for achieving certain objectives (Wulandhari *et al.*, 2022; Bourdieu, 1986; Coleman, 1988). Therefore, the breadth of social capital held by the actors can significantly influence the achievement of cooperative relationships.

Social elements such as reputation, history of relationships, reciprocal actions and risks of opportunistic behavior influence the existence and maintenance of cooperation (Dyer; Singh, 1998; Granovetter, 1985; Lavie, 2006; Putnam, 2006). This is because relationships that require a higher transaction cost will be discouraged and thus there will be a greater propensity to cooperate with organizations, directly or indirectly, reliable. (Dyer and Singh, 1998; Yu *et al.*, 2006).

Consequently, trust, which implies the predictability of an actor's behavior (Putnam, 2006), arises after continuous and repeated transactions (Granovetter, 1985; Yu *et al.*, 2006) and can occur through the history of transactions of the organization itself or, indirectly, through an intermediary, who is a certain actor (reliable) who expresses confidence in a third actor, thus enabling a more accurate

evaluation of the achievement or not of a relationship (Coleman, 1990; Granovetter, 1985) therefore, is an indirect trust.

Social capital researchers, for example, Coleman (1988, 1990) and Putnam (1993), understand that a closed relational structure, that is, with greater intensity of bonds between the same actors, maximizes social capital, since it allows collective sanctions, creates reliability, as well as there is the development of norms and reputations between actors; this is the case, according to Granovetter (1985), through the sharing of information (positive or negative) among the actors that make up the network, discouragement of practices considered inappropriate.

Thus, since in intercooperation relations there is no hierarchical subordination, the informal mechanisms of control, such as trust and reputation, exercise a greater importance for the minimization of opportunistic behavior and, consequently, expansion of the scope of intercooperative relations. These behaviors that discourage intercooperative relationships, such as the hitchhiking or free-riding effect, can be minimized through social norms, such as reciprocity, trust, pressure and punishment of peers (Tremblay *et al.*, 2019; Langrafe *et al.*, 2020). Therefore, it is relevant that cooperatives develop social capital, either by building an adequate reputation, through a history of successful social and commercial relationships, or through reciprocity in their relationships; in addition, the cooperative can be linked to other actors with important reputations.

In this sense, the fact that a cooperative integrates with a network that has an expressive credibility, with the possibility, for example, of using a trademark with relevant reputation, can encourage it to link with cooperatives of higher degree, either for commercial objectives, or even to obtain indirect credibility with other cooperatives and other stakeholders. Thus, there is the mitigation of its possibilities to behave opportunistically, first by the existing closure in the network (specifically among the members who make up the 2nd degree cooperative), and secondly by the risk of no longer maintaining the benefits arising from their participation in the network.

Through the discussion of the findings, we found support for the following propositions (P):

P2: The reputation of the cooperative positively influences intercooperation.

P3: Opportunistic behaviors negatively influence intercooperation.

P4: The social capital of cooperative minimizes opportunistic behavior and maximizes intercooperation.

DISCUSSION

Theoretical contributions

Cooperation between cooperatives (inter-cooperation) is manifested in a wide range. Preliminary studies and concepts categorize it *ex ante*, such as the research by Boccatonda *et al.* (2019), Božić *et al.* (2019), Mendina *et al.* (2019), Pachón (2015), which presented elements of intercooperation, as expressed in Table 2, which include supply and purchase of product between cooperatives, marketing and joint work, integrated brand, resource sharing, corporate participation, among others.

Previous research related to organizational relationships has identified opportunistic behavior as one of the main aspects that may derail cooperative relationships (Dyer and Singh, 1998; Balestrin and Verschoore, 2016). Thus, control mechanisms, for example, contracts for the purchase and sale and bureaucratic control were specified as means to minimize such behaviors (Williamson, 1985). Moreover, other elements such as high-risk transactions, uncertain results, and significant investments to control transactions may suggest that hierarchy relationships are the most efficient governance structure (Williamson, 1975, 1985; Granovetter, 1985).

However, it should be noted that cooperatives do not fit specifically in the market governance structure, nor in the hierarchy model (according to structures proposed by Williamson and other theorists of transaction cost savings), therefore, as suggested by Sartorelli *et al.* (2019), the governance structure that predominates in cooperatives can be classified as hybrid, which, according to Ménard (2004) has some main characteristics, that is: organizations share resources and relational contracts, their competition is a combination of interdependence and autonomy in which actors compete with each other and with other organizational arrangements.

Therefore, in this context, hierarchical and/or market control mechanisms, although relevant, will not be sufficient to minimize opportunistic behavior and stimulate intercooperation. In this sense, it is suggested that informal control mechanisms be emphasized to minimize such behaviors and, thus, maximize the achievement and maintenance of intercooperative relationships.

Integrated brands and corporate participation will require a broad history of successful relationships and an expressiveness of informal control mechanisms, such as reputation. This is because, in these contexts, the reputation of a cooperative will be linked to the reputation of its partners and, moreover, due to the significant integration between cooperatives, there will be a greater link between the actions undertaken by them.

Based on relational view and economic sociology, especially on studies on social capital, it is assumed that organizations can benefit from the reputation of their partners, since this reputation can be reflected in their own image (34). Furthermore, it is possible that actors with a relevant reputation express a certain security with regard to their competencies (42), in addition, reputation can minimize the chances of those actors who hold it to behave opportunistically, once, in this context, as Granovetter (1985) and Putnam (2006) emphasize, may incur collective sanctions, reflecting on its credibility.

Thus, cooperatives that have a significant reputation will tend to be seen as reliable actors (both for the execution of commercial transactions and for links with a greater degree of integration) and, moreover, relevant benefits from this connection will be projected, either generating credibility for partner organizations, or even through the possibility of access to resources (for example, knowledge, contacts, etc.). Therefore, the reputation developed over the years will act as a relevant means for formal and informal bonds of intercooperation.

It is worth mentioning that the reputation and history of the cooperative are elements that enable the achievement of a sustainable position of competitive advantage, since, as pointed out by theorists of the Path Dependence and Resource-Based View approaches (Arthur *et al.*, 1987; Barney, 1991; Rumelt, 1984), are specific resources of the organization, complexly imitable, since other organizations will not be able to access them without the path necessary to develop them is undertaken.

It should be noted that previous studies, such as Pachón (2015), integrate mergers and incorporations between cooperatives as intercooperative relations. However, as these consist of total legal and economic integration, it will not be characterized as an intercooperative relationship, but rather economic functions performed within the hierarchical limits of the cooperative. This is because the achievement of mergers and acquisitions will not involve the same types of restrictions and transaction costs existing in cooperation networks, since, as Williamson (1975; 1985) emphasizes, inappropriate practices and opportunistic behaviors are fought through controls instituted by the hierarchical structure.

Practical implications

Among the practical implications of the study, we highlight the conditions that prevent or favor the achievement of cooperation between cooperatives. Although it is one of the principles of cooperativism, intercooperation is seen as more aspirational than it integrates cooperative activity. This is primarily because opportunistic behaviors that prevent cooperative actions will not be minimized only through market mechanisms, but mainly through informal control mechanisms. Therefore, in order to restrict such behaviors and, consequently, expand cooperation actions and transfer of resources, formal mechanisms (such as contracts) will be imperfectly effective, demanding the expansion of informal mechanisms.

Thus, it is suggested that cooperatives expand their participation in closed networks of relationships, as well as value reciprocity actions and maximize their reputation with other cooperatives. Such actions will maximize the cooperative's social capital and, consequently, will positively influence the achievement of inter-cooperative relationships.

It is worth noting that closed networks (which can be made possible by 2nd degree cooperatives) favor the construction of social capital, however, presidents and managers of cooperatives must be cautious in limiting themselves to maintaining relationships with actors in such networks, this is because, while closed networks are important for enhancing reputation and building social capital, it can prevent access to non-redundant (new and diversified) resources and contacts, which can contribute to the cooperative's innovation and performance; therefore, it is suggested

that they take a balanced approach to intercooperative relationships.

CONCLUSION

Intercooperation, which is linked to vertical, horizontal, sectoral and multisectoral relations between cooperatives, is related to establishing relationships that contribute to the achievement of integrated objectives, involving commercial relations between cooperatives, actions carried out jointly, sharing resources and support between cooperatives.

It is noteworthy that sharing contacts and altruistic support are classes of intercooperation not categorized in previous research, however, they are elements identified in the present study that integrate intercooperative relationships (according to characteristics linked to the concept of ICA) and can contribute significantly to the results of cooperatives.

It was found that the greater the degree of integration involved in the intercooperative relationship, the more expressive the need for informal control mechanisms. There is an inverted U-shaped relationship between the formality of control mechanisms and the sharing of resources between cooperatives. Furthermore, the reputation of the cooperative positively influences intercooperation.

The study was limited to analyzing cooperatives from two countries, therefore, it is suggested to expand the analysis to other countries. Furthermore, there is a need for new studies to validate the propositions presented in this research; thus, it is suggested to carry out quantitative research to expand investigations related to the objective of the study. Finally, it is suggested to investigate the influence of the categories of intercooperation on the innovativeness of the cooperative.

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