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Intercooperative Relationships: characteristics, challenges and possibilities for Interorganizational Cost Management

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ABSTRACT

This study aims at discussing the characteristics of intercooperative relationships and the challenges and possibilities for Interorganizational Cost Management (IOCM) in these arrangements. For this, the theoretical essay method was used to review the national and international literature in the area of cooperatives. Thus, based on the literature and having the Contingency Theory (CT) as a theoretical lens, a contingency structure of the IOCM was proposed, consisting of eleven factors grouped into "factors exogenous to the cooperative", "factors specific to the cooperative" and "factors specific to the intercooperative relationship". The results of the analysis show that: (i) factors external to the cooperatives can make the adoption of the IOCM viable, such as pressure for financial competitiveness and multiple objectives; (ii) specific factors of cooperatives, such as small size trends and shortage of capital, are challenges to IOCM; and (iii) factors specific to intercooperative relationships, such as lack of trust and competition, can restrict the adoption of IOCM techniques and the very formation of intercooperative relationships. It is noteworthy that while CT conventionally works with the perspective of a single company, this essay highlights possibilities of its application in interorganizational relationships, considering relationship factors beyond those specific to the company. Furthermore, on the theme of IOCM, no studies applied to intercooperative relationships were identified. It is concluded that the research can bring new perspectives to researchers, especially on the topic of management in cooperative societies, with reflections both on the adoption of IOCM techniques, as well as on the constitution and performance of intercooperative relationships.

PALAVRAS-CHAVE

Intercooperação, GCI, Teoria de Contingência

RESUMO

Este estudo visa discutir as características dos relacionamentos intercooperativos e os desafios e possibilidades para a Gestão de Custos Interorganizacionais (GCI) nesses arranjos. Para isso, recorreu-se ao método de ensaio teórico para revisar a literatura nacional e internacional na área de cooperativas. Assim, alicerçado na literatura e tendo a Teoria de Contingência (TC) como lente teórica, propôs-se uma estrutura contingencial da GCI composta por onze fatores agrupados em "fatores exógenos à cooperativa", "fatores específicos da cooperativa" e "fatores específicos do relacionamento intercooperativo". Os resultados da análise evidenciam que: (i) fatores externos às cooperativas podem viabilizar a adoção da GCI, como pressões por competitividade financeira e objetivos múltiplos; (ii) fatores específicos das cooperativas como tendência de pequeno porte e escassez de capital, são desafios à GCI; e (iii) fatores específicos dos relacionamentos intercooperativos, como falta de confiança e competição, podem restringir a adoção de técnicas de GCI e a própria formação de relações de intercooperação. Destaca-se que enquanto a TC convencionalmente trabalha com a perspectiva de uma única empresa, este ensaio evidencia possibilidades de sua aplicação em relações interorganizacionais, considerando fatores do relacionamento além dos específicos da empresa. Além disso, na temática da GCI não foram identificados estudos aplicados às relações intercooperativas. Conclui-se que a pesquisa pode trazer novas perspectivas aos pesquisadores, especialmente no tema de gestão em sociedades cooperativas, com reflexões tanto sobre a adoção das técnicas da GCI, quanto para constituição e desempenho de relações intercooperativas.

1 Introduction

The increasingly uncertain and dynamic global market has encouraged companies to seek strategies that help them to be more competitive (Fehr & Rocha, 2018), such as acting in key markets, increasing productivity and product quality, reducing costs or investing in qualification of employees and new technologies. However, these are very costly activities and most organizations face difficulties in obtaining the necessary resources for this (Klotzle, 2002).

Therefore, strategic moves such as the formation of networks, joint ventures, clusters, among other forms of alliances, started to occur between companies from different regions and sectors, including those involving direct competitors (Braga, 2015; Konzen & Oliveira, 2015), aiming at obtaining benefits such as gains in scale and market power, in addition to reducing costs and risks (Corso & Fossa, 2008).

This reality is also imposed on cooperatives and the formation of interorganizational relationships is presented as a strategy to maximize wealth, strength and acquire mutual benefits. Intercooperation, as the interorganizational relationships that occur between cooperatives are called, is encouraged in the 6th International Principle of Cooperatives as a way to serve members more effectively and strengthen the cooperative movement (International Co-operative Alliance [ICA], 2015).

However, in an interorganizational relationship, the success of individual companies depends on joint performance and this often falls short of expectations due to problems of coordination and alignment in actions (Dhaifallah, Md-Auzair, Maelah, & Ismail, 2016). In this line of argument, ICA (2015) points out that intercooperation relationships, to be effective, need to balance different interests and this requires time, resources and skills to solve problems, in addition to transparent, responsible and democratic decision-making processes.

Faced with the challenges, research shows that many cooperatives end up acting in isolation and competing with each other several times (Konzen & Oliveira, 2015; Fonte & Cucco, 2017). For Mendina, Menezes Lima, Souza and Milan (2019), this resistance of cooperatives to establish intercooperative relationships is related to aspects that can harm their performance, such as cultural differences, fear of losing autonomy and power, lack of trust, competition and opportunistic behavior.

In this situation, Interorganizational Cost Management (IOCM) can be an interesting alternative to manage coordination problems, reduce information asymmetries and costs that cross organizational boundaries (Cooper & Slamulder, 2004; Kajuter & Kulmala, 2005). IOCM is already recognized as a set of practices aimed at aligning objectives, increasing competitiveness and efficiency in interorganizational relationships. However, as it is highly influenced by its application context (Kajuter & Kulmala, 2005, Windolph & Möller, 2012), it is relevant to understand the relational factors that can impact it to build combinations that lead to superior performance.

Given the above, the question is: which factors can favor or inhibit the application of Interorganizational Cost Management in the context of intercooperative relationships? From the literature analysis under a contingency perspective, this theoretical essay aims to discuss the characteristics of intercooperative relationships and the challenges and possibilities for Interorganizational Cost Management in these arrangements.

For this purpose, the Contingency Theory (CT) approach was adopted as a theoretical lens to understand the conditions under which IOCM would be facilitated or restricted in intercooperation relations. CT is often used to explain the conditions under which specific Management Control Systems (MCS) will be found in organizations (Chenhal, 2006, Pernot & Roodhooft, 2014, Otley, 2016).

As the conventional contingency structure works with the perspective of a single company, considering internal and external factors, in the area of IOCM studies such as those by Kajuter and Kulmala (2005), Camacho (2010), Windolph and Möller (2012) and Caglio (2018) included the understanding of contextual factors of the interorganizational relationship in addition to those specific to the company. In this aspect, the present research adds to the aforementioned studies, theoretically justifying itself by showing possibilities of applying CT in the context of interorganizational relationships, especially in the relationships between cooperatives.

It is noteworthy that in an increasingly competitive business environment, research on interorganizational relationships is growing in the number of national and international publications, but studies aimed at relationships among cooperatives are still incipient (Lago & Silva, 2012). As for the IOCM theme, specifically, this is still recent, but it also has researches concentrated in the field of investor owned firms (IOF), where its conceptual basis was elaborated (Duarte, 2017), and no studies in the context of intercooperation have yet been identified. Therefore, it is expected that the research can bring new perspectives to researchers and contribute to the advancement of knowledge on the themes of IOCM and cooperative societies.

Additionally, the results of this study can contribute in a practical way to the activities of managers of cooperatives by raising reflections on potential restrictions and facilitating aspects both for the adoption of IOCM techniques, as well as for the constitution and performance of intercooperative relationships.

The article is structured and contains, in addition to this introduction, a second section aimed at presenting the concept of IOCM and the relational contexts associated with its practices. The third section describes the research methodology. The fourth and fifth sections, respectively, characterize the intercooperative relationships and discuss their particularities in the light of CT as challenges or favorable possibilities for the adoption of IOCM in these arrangements. Finally, the sixth section presents the final considerations.

2 Interorganizational Cost Management and the Contingency Theory

The term "Interorganizational Cost Management" emerged timidly in the 1990s as a result of research led by Robin Cooper in the management area of Japanese companies (Farias & Gasparetto, 2015). In the first study that specifically addresses IOCM, Cooper and Yoshikawa (1994) state that the technique improves coordination and efficiency between companies in a chain, guiding cost reduction.

From this, Cooper and Slagmulder (1999) specify the objectives of IOCM, such as cost reduction, increased profitability and the sharing of additional gains, in addition to the creation and maintenance of cooperative actions among members of a network. Thus, it is understood that IOCM comprises a set of managerial and operational practices used in the context of interorganizational relationships (Uddin, 2013) in order to improve coordination between companies (Agndal & Nilsson, 2009; Kajuter & Kulmala, 2005), reduce information asymmetries (Cooper & Slamulder, 2004) and manage costs that cross organizational boundaries (Cooper & Slamulder, 2004; Kajuter & Kulmala, 2005).

As for its operationalization, IOCM is often addressed in the literature as a concept composed of a set of practices or techniques, as shown in Table 1.

Table 1: IOCM techniques cited in the literature

Technique	Description	Author (year)
Target costing	Tool that aims at ensuring that products or services meet the price that customers are willing to pay and the financial return expected by the owners of the capital. Target Cost = Target Price – Profit	Agndal and Nilsson (2009); Cooper and Slagmulder (2004); Cooper and Yoshikawa (1994); Fayard, Lee, Leitch and Kettinger (2012); Möller, Windolph and Isbruch (2011); Windolph and Möller (2012)
Functionality-price-quality trade-off	It proposes to reduce product functionality and/or relax its quality specifications in order to reduce costs. As it deals with three variables that can be traded, it has a good chance of bringing positive results to all parties involved.	Agndal and Nilsson (2009); Cooper and Slagmulder (2004); Cooper and Yoshikawa (1994); Möller, Windolph and Isbruch (2011); Windolph and Möller (2012)
Interorganizational cost investigation	It implies intense interactions among companies to increase the scope of project changes, and may involve more than two members of the network. The essential design of the final product remains fixed.	Agndal and Nilsson (2009); Cooper and Slagmulder (2004); Möller, Windolph and Isbruch (2011); Windolph and Möller (2012)

Concurrent cost management	Promotes substantial changes in product design, so buyer and supplier designs must be modified accordingly. Technique used for high value items.	Agndal and Nilsson (2009); Cooper and Slagmulder (2004); Möller, Windolph and Isbruch (2011); Windolph and Möller (2012)
Kaizen costing	Improvement system aimed at cost reduction in the production phase. The product design is considered fixed and ways are sought to coordinate activities in the chain so that production is constant and allows optimizing manufacturing and delivery costs.	Agndal and Nilsson (2009) ; Fayard et al. (2012)
Open-book accounting (OBA)	Sharing internal accounting data, especially the cost structure, in order to facilitate cooperation between buyer and supplier to identify critical areas and potential for cost reduction.	Agndal and Nilsson (2009) ; Fayard et al. (2012); Kajüter and Kulmala (2005); Möller, Windolph and Isbruch (2011); Windolph and Möller (2012)

Source: Elaborated by the authors (2021)

Considering that the practices that make up the IOCM are diverse, Cooper and Slagmulder (2004) concluded that the selection of the most appropriate technique occurs depending on the configurations of the existing relational context and the relational context itself changes as companies develop their capacity. to carry them out.

Therefore, the perceived effect on interorganizational performance varies according to the IOCM technique adopted and the specific type of relational context associated to it, thus highlighting the importance of identifying existing environmental factors (Cooper & Slamulder, 2004).

Goven the above, several researchers have explored the IOCM and the variables that inhibit or favor the implementation of its practices, such as Cooper and Slagmulder (2004), Kajüter and Kulmala (2005), Souza (2008), Agndal and Nilsson (2009), Camacho (2010), Möller, Windolph and Isbruch (2011), Windolph and Möller (2012), Faria, Soares, Rocha and Rossi (2013), Campos, Oliveira, Leal and Duarte (2016), Duarte (2017), Caglio (2018) and Dhaifallah, Md-Auzair, Maelah and Ismail (2019), among others.

Souza (2008), based on research by Cooper and Slagmulder, proposes that the scenario that makes the application of IOCM possible would be composed of: (i) products with a profit margin below the target and multiple features; (ii) components with low levels of technological restriction and low value index; (iii) relationships that involve interdependence and trust among companies and the creation of an environment with stability, cooperation and mutual benefits; (iv) types of chain with dominant companies that manage to coordinate and direct the process; and (v) presence of disciplining, enabling and encouraging mechanisms that, respectively, can define the parameters of the IOCM, guide those involved and distribute the benefits fairly.

In addition to these, when discussing the specific practice of OBA, Kajüter and Kulmala (2005) concluded that the factors that induce it are: (i) competitive environment with pressure to reduce costs; (ii) general economic growth trend; (iii) the company is large; (iv) there is an accurate cost accounting system; (v) competitive policy of the network of companies with the external environment and cooperative policy among network members; (vi) commitment of companies to maintain long-term relationships; (vii) mature hierarchical relationships in the chain of companies; (viii) products that are functional and manufactured; (ix) infrastructure with resources and tools for interorganizational support; and (x) social relationship among companies based on mutual trust.

Camacho (2010) used CT to analyze the conditioning factors of IOCM in the value chain of private hospitals in Brazil and identified a set of 12 factors, four of which (type of chain, trust, mutual benefits and degree of competition) considered inhibitors IOCM practices and eight factors (product profit margin, product functionality level, mechanisms/infrastructure, stability, cooperation, economic dependence, management information system and commitment) that favor its implementation.

The research by Windolph and Möller (2012) used the Transaction Cost Theory together with CT to investigate the relationship among OBA, IOCM and supplier relationship satisfaction. The contextual factors evaluated were “relational social norms”, which aim at protecting against

opportunistic behavior after the disclosure of information, in addition to "buyer's opportunistic behavior". As for the performance of the buyer-supplier partnership, this was evaluated based on the satisfaction of the relationship with the supplier. The results indicated that OBA can negatively affect the satisfaction of the relationship with the supplier and represent a potential risk for cooperation, especially if done unilaterally. Additionally, relational social norms mitigate the negative effect of unilateral OBA on supplier satisfaction.

In a recent study, Caglio (2018) sought to analyze when and why OBA is used and its relationship with organizational performance. Based on the literature, the author raised key antecedents for the use of the OBA and investigated how these influenced the extent of the use of the OBA based on the responses of 135 European managers. The contingency structure considered: (i) environmental factors, with competition based on costs and economic trends; (ii) relational factors, being a willingness to collaborate and long-term orientation; and (iii) technical and procedural factors, being a cost accounting system and shared infrastructure. The extent of use of the OBA was evaluated through a list of different managerial accounting information potentially exchanged between companies and performance by perceived financial gains and non-financial performance. The results indicate that the extent of OBA use was explained by relational factors (such as the propensity to work together in the long term) and technical factors (such as the presence of sophisticated cost accounting systems), as well as suggesting a positive association between OBA and company performance.

Given the above, it is clear that CT is used with the intention of explaining how MCS vary according to specific situations and whether they are associated to better performance (Chenhal, 2006; Otley, 2016). The basic contingency model deals with the strategy-structure-performance paradigm, as shown in Figure 1.

Figure 1: Basic Contingency Structure

Source: Anderson and Lanen (1999, p. 380)

It can be seen in Figure 1 that exogenous environmental factors and company-specific endogenous factors influence the organizational structure, understood as management accounting practices (Anderson & Lanen, 1999). The performance variable is linked to the contingency structure, indicating that the fit between the contingencies and the organizational structure will affect performance (Donaldson, 1999).

As research progressed, several variables were added to explain the design and use of MCS. Part of this is due to the process of changes in the world economy that impacted the restructuring of many companies, with greater outsourcing of activities and integration in the supply chain, which ended up being reflected in the context of accounting and management control (Otley, 2016).

For Pereira (2014), interorganizational relationships have challenged management accounting, hence the growing interest of researchers in investigating interorganizational management controls. Thus, CT started to be frequently used to deal with situational variables that influence the design of interorganizational relationships in the MCS, as is the case of research focused on the IOCM (Pernot and Roodhooft, 2014).

Therefore, this essay reflects on the characteristics of intercooperative relationships analyzed as contingent factors for the adoption of IOCM practices.

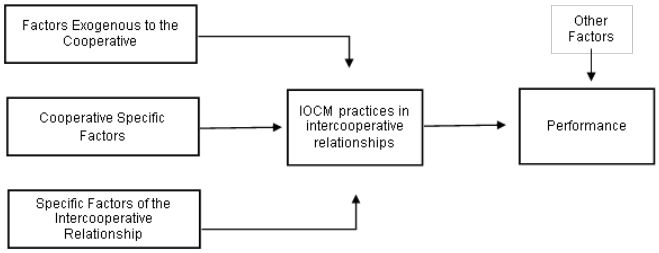
3 Methodology

In the present study, the theoretical essay method was used, through which, based on the literature, a logical and reflective exposition was sought, with rigorous argumentation, interpretation

and personal judgment to defend a certain position (Severino, 2007).

Contingency Theory (CT) was adopted as a theoretical lens to understand the conditions under which IOCM would be facilitated or restricted in intercooperative relationships. Thus, as shown in Figure 2, it was sought to build a contingency structure based on the literature, which would allow discussing the relational factors of intercooperation as conditions for the adoption of IOCM practices in these relationships.

Figure 2: Contingency Structure for IOCM in Intercooperative Relationships



Source: Based on Kajüter and Kulmala (2005)

To achieve the proposed objective, supported by the seminal studies by Cooper and Slamulder (2004), Kajuter and Kulmala (2005) and Souza (2008), the contingent factors of the IOCM evaluated in this research were initially delimited, grouped in Table 2 in: (i) two factors exogenous to the cooperative; (ii) two specific factors of the cooperative; and (iii) seven specific factors of the interorganizational relationship.

Table 2: Contingency factors analyzed in the research

IOCM Contingent Factors		**Scenario in which factors enable the application of IOCM**
Factors exogenous to the cooperative	Competition level	Highly competitive market causes pressure to continually reduce costs, influencing IOCM.
	Economic trend	An economy with a general growth trend favors and influences the extension of the IOCM.
Cooperative-specific factors	Firm size	The implementation and use of IOCM is more favorable in large companies.
	Cost Accounting System	Existence of a system capable of providing accurate cost and margin information at the product level.
Specific factors of the interorganizational relationship	String Types	The IOCM needs to be supported by at least one of the members, hierarchical networks please it.
	Mechanisms	Interorganizational infrastructure with disciplinary, enabling and encouraging mechanisms enables the necessary support for the IOCM.
	Interdependence	The greater the mutual dependence between organizations, the more favorable the application of the IOCM.
	Mutual trust	Success of IOCM depends on a high level of mutual trust among companies, allowing them to predict each other's behavior.
	Stability	The commitment among partner companies makes for a stable, long-lasting, secure and constant relationship, helping to achieve long-term goals of IOCM.
	Cooperation	Parties focused on achieving common goals, such as effective cost management and problem solving.
	Mutual Benefits	Sharing the gains achieved by the companies that participate in the partnership encourages the continuity of IOCM.

Source: Elaborated by the authors (2021)

It is noteworthy that, of the contingent factors of the IOCM proposed by Cooper and Slamulder (2004), Kajuter and Kulmala (2005) and Souza (2008), the characteristics of the products and their components were not analyzed in this research, as it is understood that they are specifics of the area of operation of each cooperative and that are not related to the fact that it is or is not involved in an intercooperation relationship.

In the next section, based on a review of the national and international literature in the area of cooperatives, it was sought to contextualize the characteristics of intercooperative relationships and synthesize, for each contingent factor listed in Table 2, which characteristics can be considered as inhibitors or challenges for the adoption of IOCM practices and which lead to favorable possibilities of their adoption in these arrangements.

4 Characterization of Intercooperative Relationships

A cooperative is an autonomous association of people voluntarily united to meet economic, social and cultural needs through a democratically managed and jointly owned company (ICA, 2015).

Based on this, the particular characteristics of these organizations are both sources of criticism by those who consider cooperativism inefficient, as they are considered competitive advantages of cooperatives over conventional companies. Thus, in Table 3, some issues related to the constitution and management of cooperatives identified in the traditional literature as critical for their viability in the globalized economy are highlighted (Bretos & Marcuello, 2017).

Table 3: Difficulties and strengths of cooperatives

Aspect	Dificulties	Strengths
Eonomic and financial structure	Underinvestment, risk aversion, lack of external financing and productive inefficiency.	Participation of workers in decision-making, ownership and profits, cooperation with other cooperatives and organizations.
Size	Small size, weak market position, slow growth.	Cooperation with other cooperatives and organizations, education aimed at sustainable growth.
Management	Recruitment and retention of managers, lack of management expertise in cooperative values and culture.	Management training and promotion policies, retention by means other than monetary incentives, training for managers in values and cooperative culture.
Democratic decision making	Slow and inefficient collective decision-making process in view of the members' heterogeneous goals.	Horizontal organizational structures, decentralization of decision power, training in democratic decision making.

Source: Based on Bretos and Marcuello (2017)

From the above, it is clear that intercooperation is identified as one of the outstanding strengths of cooperativism. This partnership among cooperatives can range from knowledge sharing to common commercial operations (Braga, 2010) and symbolizes a second step for the organization of cooperative members that allows them to access new markets, develop products or services, obtain gains in scale and reduce costs, professional qualification, among other advantages (Konzen & Oliveira, 2015).

To better understand the structures of intercooperation, it is important to clarify that, in general, the cooperative movement is vertically organized into three levels: (i) local, which includes singular or first-degree cooperatives; (ii) regional, which are the so-called federations, central or second-degree cooperatives, formed by the union of unique sectorial cooperatives; and (iii) national, third degree or confederations, which reflect the union of central cooperatives of any branch (Organization of Brazilian Cooperatives [OBC], 2020).

For Fonte and Cucco (2017), this form of organization shows a clear proposal of vertical ties and fragile horizontal links in the governance structure of the cooperative movement. In contrast, ICA (2015) states that, in addition to local, national and international structures that facilitate intercooperation, there is also the possibility of this occurring through informal project-based collaborations among cooperatives aiming at building trust and solidarity, or even via creation of networks that, normally with a less rigid structure, involve people and allow the emergence of new cooperatives.

As for the reasons or antecedents that lead to the formation of intercooperative relationships and the factors need to be associated to the intercooperation to achieve the desired results, Lago (2009) identified as being: (i) the asymmetry, both of information and power, economic asymmetry and market, as it shows the potential that an organization has to exercise power or control over another organization or resources; (ii) reciprocity, which consists of mutual help among cooperatives in times of difficulties or in the development of joint projects; (iii) efficiency, that is, the search for greater productivity of available resources that can occur through obtaining and improving technical and market information, reducing costs, guaranteeing the product's marketing channel or meeting the necessary conditions to meet market requirements; (iv) stability or search for adaptation in the face of uncertainty; and (v) legitimacy, focused on the recognition and justification of cooperativism before society and its members.

According to Souza (2016), relations among cooperatives are difficult to manage and involve many factors to be lasting and generate benefits. When evaluating a netchain of milk in the State of

Minas Gerais, the author found that the cooperatives considered themselves stronger separate than involved with intercooperation and the relationship of the central cooperative with the singular ones was one of competition and opportunism, involving only commercial interest. In this case, the lack of trust among the cooperatives and the focus on their own goals made it difficult to share information and the search for joint growth.

This view was supported by Martins, Faria, Prearo and Arruda (2017) in a survey of 146 individual credit unions in Brazil, which demonstrated that trust, commitment and cooperation positively influence the relationship of individual credit unions with their central.

Misguided partnerships and competition among cooperatives were the main restrictive factors for intercooperation identified in a network of agro-food cooperatives in the milk industry in the State of Paraná. Despite this, drivers such as formal governance mechanisms, corporate co-participation of cooperatives among themselves, independent business units and professionalized management, made this a successful case of intercooperation among three unique cooperatives and a foundation (Mendina et al., 2019).

For Hannachi, Coleno and Assens (2020), the competition factor also appeared and was overcome in the formation of horizontal relationships among cooperatives in France. The articulation of cooperative and competitive strategies made cooperatives capable of coordinating farmers' production practices and choices, market needs and organization in agricultural regions, in order to manage the presence or absence of crops with Genetically Modified Organisms (GMO) and avoid its mixing with conventional cultures. In this case, the importance of cooperative managers being aware of possible "coopetition" strategies and the various mechanisms (formal and informal) of governance to establish coordination, communication and trust among rival cooperatives was highlighted.

The case study carried out by Galerani (2003) addresses an intercooperative relationship in the dairy sector that emerged from a singular cooperative, with serious financial difficulties, and a central cooperative that faced shortages of raw materials. Intercooperation aimed at the immediate survival and subsequent long-term strengthening of cooperatives. In general terms, the results obtained were positive with the optimization of the structure, achievement of production scale, cost reduction and an end to competition between cooperatives. As a disadvantage of intercooperation, in this case, the dependence of the singular cooperative in relation to the central cooperative regarding to the definition of the price to be paid to the producer for the raw material, in addition to the fact that the cooperative members are more distant from the management, was pointed out. This aspect deserves attention, since independence is included in the basic principles of cooperativism and cannot be violated (ICA, 2015).

In the agri-food sector in Italy, Fonte and Cucco (2017) realized that the cooperative movement is marked by conflicting views regarding the scale of cooperatives, the distance (spatial and cultural) between managers and cooperative members, and the emphasis on competitiveness. For the authors, there is a structural dualism between small and large cooperatives, in which the large ones have market behavior, organizational culture and management styles, while the small ones are focused on the social benefits of cooperation and the democratic participation of cooperative members and the local community. In this case, attempts at collaborations in a heterogeneous environment, with multiple stakeholders and without shared values can intensify conflicts between cooperatives.

In view of this, this characterization is concluded by pointing out that when speaking of intercooperation, it is necessary to consider not only the vertical or horizontal interorganizational relationships between cooperatives, but also the interpersonal relationships. This fact adds complexity to cooperative management in isolation and even more when it comes to the formation and performance of intercooperative relationships (Pérez, Cervantes, & Martínez, 2016).

Therefore, given the multiplicity of actors and objectives involved in intercooperation, the IOCM can be an interesting alternative for the coordination, management and performance of relationships. However, as the specificities of the intercooperation context can impact the efficiency of the IOCM, in the next section, these are carefully analyzed as conditioning factors of the technique.

5 Challenges and Possibilities of IOCM in Intercooperative Relationships

As defined in the research methodology, based on the characteristics of the previously highlighted intercooperative relationships, an argumentative synthesis effort was made around 11 contingent factors for IOCM, namely: (i) two factors exogenous to the cooperative (level of competition and trend economic); (ii) two specific factors of the cooperative (firm size and cost accounting system); and (iii) seven specific factors of the interorganizational relationship (type of chain, interdependence, mechanisms, cooperation, trust, stability and mutual benefits).

The level of competition is the first exogenous factor considered by Kajüter and Kulmala (2005), in which it is stated that a highly competitive market causes pressure to continuously reduce costs, positively influencing IOCM. In the case of cooperatives, it is highlighted that these are companies with an economic function and at the same time a social group of cooperative members who can assume multiple roles, often in addition to owners, also suppliers, customers, workers and managers (Pérez, Cervantes & Martínez, 2016). Therefore, they are challenged to compete in an increasingly aggressive business environment, considering dual performance objectives: the search for organizational profitability and the guarantee of benefits to members (Franken & Cook, 2015, Benos, Kalogeras, Verhees, Sergaki & Pennings, 2016, Pérez, Cervantes, & Martínez, 2016, Grashuis & Su, 2019). Consequently, as cooperatives are subject to pressure from the globalized market, this is one of the factors considered as a favorable possibility for the adoption of the IOCM.

Regarding to the general economic trend, Kajüter and Kulmala (2005) understand that economic growth favors IOCM as partners benefit from additional business opportunities that arise through closer cooperation. At this point, evidence indicates that cooperatives present countercyclical action and better performance when compared to IOF in periods of crisis (Fonte & Cucco, 2017). This reflects a favorable scenario for IOCM, as cooperatives can take advantage of periods of economic growth and manage to be more resilient in times of economic downturn.

Regarding to the factors "firm size" and "cost accounting system" that are specific to the cooperative, the use of IOCM is considered more favorable in large companies, normally able to commit more resources in capable accounting systems to provide reliable information on costs and margins at the product level (Kajüter & Kulmala, 2005). These factors can be considered challenges for the adoption of IOCM practices in cooperatives, since considering that the growth of the organizational structure increases the heterogeneity in the attitudes and objectives of cooperative members, in the quest to maintain their democratic nature and proposals for the local community, most cooperatives tend to remain small and with financial capital restrictions (Bretos & Marcuello, 2017, Grashuis & Su, 2019).

Regarding to the specific factors of the interorganizational relationship, the first is the “type of chain”. In this, hierarchical networks are considered more favorable for IOCM, since, if a company exerts power or control over others, it may find it easier to support the adoption of the technique by others (Cooper & Slagmulder, 2004, Kajüter & Kulmala, 2005), not only for the coercive issue, but for exercising the function of coordination between companies (Martins et al., 2017).

In the context of cooperatives, different types of alliances can occur, but vertical integration formats are the most widespread internationally. In Brazil, for example, it is specified in Law n. 5.764 of December 16, 1971, called the law on cooperatives, the possibility of forming central cooperatives and confederations (Brazil, 1971). It is noteworthy that, although this characteristic leads to believe that this preponderant format of vertical intercooperation could give rise to hierarchical relationships between cooperatives, in fact this should not occur. According to ICA (2015), in any format of intercooperation, decision-making must be flexible, fair and representative of the different stakeholders, so that no one person or group can dominate the process.

Based on the above, it can be said that the type of chain expected to be found in intercooperative relationships will not necessarily be the hierarchical pattern. In this sense, it is understood that it will be the asymmetry of power among the cooperatives in each situation that will show whether the type of chain is a potential challenge or possibility for adopting the IOCM.

In line with this vision, the “interdependence” among organizations also contributes to the stability of the relationship, supporting the IOCM (Cooper & Slagmulder,

2004, Souza, 2008). For cooperatives, finding themselves in a situation of interdependence favors the formation of intercooperation, but requires care with the presence of enabling, disciplining and encouraging "mechanisms" in the interorganizational infrastructure (Cooper & Slagmulder, 2004, Souza, 2008). It is necessary to seek a balance between the indispensable management autonomy by the cooperative members and the adoption of mechanisms that reduce individual freedom and flexibility, but which allow to guide, control and inform the distribution of benefits generated by the relationship (Galerani, 2003, Mendina et al., 2019, Hannachi, Coleno, & Assens, 2020). Therefore, as independence is included in the basic principles of cooperativism and should not be violated (ICA, 2015), it is understood that interdependence factors and mechanisms are challenges for the adoption of IOCM in intercooperative relationships.

Additionally, the "cooperation" factor highlights the mutual help among organizations focused on achieving common goals, such as effective cost management (Cooper & Slagmulder, 2004, Kajüter & Kulmala, 2005). This factor can be considered a challenge for the IOCM in intercooperative relationships, because even the cooperation between cooperatives included in the international principles of the movement (ICA, 2015), the literature shows a focus on their own goals and competition, especially among larger and smaller cooperatives (Souza, 2016, Fonte & Cucco, 2017, Grashuis & Su, 2019).

"Trust" is one of the most sensitive contingency factors when it comes to IOCM, since, if the value chain is hierarchical, there may even be a forced implementation of the technique, but its success requires a level of mutual trust that allows companies to predict the behavior of each other (Cooper & Slagmulder, 2004, Kajüter & Kulmala, 2005). Since gaining trust takes time and effort, this is directly related to the "stability" factor. Stability shows the commitment between companies and makes the partnership lasting, secure and constant, allowing those involved to achieve long-term goals and enjoy the results of IOCM (Cooper & Slagmulder, 2004, Souza, 2008).

In cooperatives, trust and stability are identified as some of the factors that most impact the decision to carry out intercooperation or not (Martins et al., 2017, Mendina et al., 2019). Consequently, the presence or absence of these two factors in a context will be reflected in a favorable possibility for the adoption of the IOCM or in a challenge, both for the adoption of the practice and for the formation and continuity of the intercooperative relationship.

Finally, "mutual benefits" is the last specific factor of the interorganizational relationship and deals with the need to share the gains achieved by the companies that participate in the partnership, encouraging the continuity of the IOCM (Cooper & Slagmulder, 2004). In the scenario of intercooperation, it appears that the search for cost reduction, greater productivity of available resources and long-term strengthening are successful in many cases. Even so, it is known that the financial measures normally used to evaluate the performance of IOF may not be sufficient for intercooperation relationships or not be the best indicator of success. It is necessary to consider that the performance of cooperatives must also encompass aspects from other areas, such as the satisfaction of the members' objectives (Franken & Cook, 2015, Benos et al., 2016). Therefore, defining what would be the common gains and their sharing can also be considered a challenge for the IOCM in intercooperation.

6 Final considerations

In a scenario where cooperatives are challenged to remain competitive and at the same time faithful to cooperative principles, it is important to find ways to improve financial performance and also the quality of products and services offered to members. In these terms, intercooperative relationships and adoption of IOCM practices can bring several advantages, but also difficulties to be managed and achieve the expected performance.

Therefore, we sought to discuss the characteristics of intercooperative relationships and the challenges and possibilities for Interorganizational Cost Management in these arrangements. The results of this theoretical essay allow us to infer that, in light of CT, of the 11 contingency factors discussed in the context of intercooperation, only the two factors external to cooperatives present themselves as possibilities that visibly enable the adoption of IOCM.

It was found that, in the definition of cooperative itself, the multiple objectives that must be pursued are already evidenced, in this case,

meeting the economic, social and cultural needs of the cooperative members. So, it is understood that these organizations are especially pressured by the competitive environment in which they operate, both to be financially competitive and to meet the different needs of members.

However, although this organizational format, with greater involvement of capital owners in the decision-making process, brings greater complexity to management, it also implies greater commitment and resilience in times of crisis.

Thus, IOCM techniques that encourage interaction between those involved, such as the functionality-price-quality trade-off, interorganizational cost investigation and concurrent cost management, can be well accepted and align with the democratic management process advocated by cooperatives. Therefore, its adoption can bring new possibilities for defining and managing common goals between cooperatives and members from different locations and, consequently, for improving the financial results of intercooperation.

As for the two specific factors of the company, it was highlighted that most cooperatives tend to remain small and with a shortage of financial capital, presenting less chances of having systems capable of providing accurate information for the implementation of the IOCM. However, it is worth analyzing which intercooperation actions are identified in the literature as one of the main solutions adopted to face other difficulties (such as a weak position in the markets, slow growth and productive inefficiency) that are associated to restrictions on the size and economic-financial structure of singular cooperatives.

Thus, "size" and "cost accounting system" are treated as challenges to the adoption of IOCM in cooperatives as factors specific to these isolated organizations, but which, given the establishment of intercooperation actions, will probably change and not necessarily will restrict the IOCM.

In the analysis of specific factors of intercooperative relationships, some aspects of cooperatives that challenge the adoption of IOCM techniques and the very formation of intercooperative relationships were revealed, such as lack of trust, focus on their own goals and competition among themselves, in addition to the need to seek a balance between the principle of independence of organizations and the adoption of mechanisms that allow guiding the relationship, defining mutual objectives and controlling the distribution of benefits achieved.

This essay allowed us to understand that intercooperation strategies can bring several benefits to cooperatives, but they are often not adopted because they are associated to increased interdependence and management complexity between organizations, highlighting the need for a flow of information that crosses borders organizational.

Therefore, it is concluded that the reflection on the challenges and possibilities for adopting the IOCM can contribute both to the performance of intercooperative relationships and to its constitution process, adding new perspectives for the alignment and coordination of interorganizational actions in this context.

Finally, it is suggested that future research seeks to empirically analyze the problem proposed here, especially the relationship among contingency factors, the design of the IOCM and the performance of intercooperative relationships.

7 References

Agndal, H., & Nilsson, U. (2009). Interorganizational cost management in the exchange process. *Management Accounting Research, 20*(2), 85-101. http://dx.doi.org/10.1016/j.mar.2008.07.001

Anderson, S. W., & Lanen, W. N. (1999). Economic transition, strategy and the evolution of management accounting practices: the case of India. *Accounting, Organizations and Society, 24*(5-6), 379-412. http://dx.doi.org/10.1016/S0361-3682(97)00060-3

Benos, T., Kalogeras, N., Verhees, F. J., Sergaki, P., & Pennings, J. M. (2016). Cooperatives' organizational restructuring, strategic attributes, and performance: The case of agribusiness cooperatives in Greece. *Agribusiness, 32*(1), 127-150. http://dx.doi.org/10.1002/agr.21429

Braga, M. J. (2010). Redes, alianças estratégicas e intercooperação: o caso da cadeia produtiva de carne bovina. *Revista Brasileira de Zootecnia, 39*, 11-16. http://dx.doi.org/10.1590/S1516-35982010001300002

Braga, B. R. (2015). *Processos em redes interorganizacionais: a dinâmica das relações*

de cooperação e contribuição da firma pela competitividade sistêmica (Doctoral Thesis in Administration). Universidade de Brasília, Brasília, DF, Brazil. http://dx.doi.org/10.26512/2015.03.T.18584

Lei n. 5.764 de 16 de dezembro de 1971. (1971). Define a Política Nacional de Cooperativismo, institui o regime jurídico das sociedades cooperativas, e dá outras providências. Retrieved on October 01, 2020 http://www.planalto.gov.br/ccivil_03/leis/L5764.htm

Bretos, I., & Marcuello, C. (2017). Revisiting globalization challenges and opportunities in the development of cooperatives. *Annals of Public and Cooperative Economics*, 88(1), 47-73. http://dx.doi.org/10.1111/apce.12145

Caglio, A. (2018). To Disclose or Not to Disclose? An Investigation of the Antecedents and Effects of Open Book Accounting. *European Accounting Review*, 27(2), 263-287. http://dx.doi.org/10.1080/09638180.2017.1315313

Camacho, R. R. (2010). *Fatores condicionantes da gestão de custos interorganizacionais na cadeia de valor de hospitais privados no Brasil: uma abordagem à luz da Teoria da Contingência.* (Doctoral Thesis in Accounting Sciences). Universidade de São Paulo, São Paulo, SP, Brazil. http://dx.doi.org/10.11606/T.12.2010.tde-22012011-164307

Campos, L. C., de Oliveira, K. G., Leal, E. A., & Duarte, S. L. (2016). Gestão de custos interorganizacionais: um estudo da "rede cerrado" de supermercados. *Contabilidade Vista & Revista, 27*(3), 81-104. Retrieved on August 20, 2020, from https://revistas.face.ufmg.br/index.php/contabilidadevistaerevista/article/view/2958

Chenhall, R. H. (2006). Theorizing contingencies in management control systems research. *Handbooks of Management Accounting Research, 1*, 163-205. http://dx.doi.org/10.1016/S1751-3243(06)01006-6

Cooper, R.; Slagmulder, R. (1999). *Supply chain development for the lean enterprise - interorganizational cost management*. New Jersy: The IMA Foudation for Applied Research.

Cooper, R., & Slagmulder, R. (2004). Interorganizational cost management and relational context. *Accounting, Organizations and Society, 29* (1), 1-26. http://dx.doi.org/10.1016/S0361-3682(03)00020-5

Cooper, R., & Yoshikawa, T. (1994). Inter-organizational cost management systems: The case of the Tokyo-Yokohama-Kamakura supplier chain. *International Journal of Production Economics, 37*(1), 51-62. http://dx.doi.org/10.1016/0925-5273(94)90007-8

Corso, K. B., & Fossa, M. I. T. (2008). "A união faz a força"? Uma análise das diferenças culturais e dos mecanismos de grupo em Redes de Empresas. *Redes, 13*(2), 289-307. http://dx.doi.org/10.17058/redes.v13i2.293

DhaifAllah, B., Md-Auzair, S., Maelah, R., & Ismail, M. D. (2016). Inter-organizational cost management and open book accounting: a review. *Asian Journal of Accounting Perspectives, 9*(1), 67-96. http://dx.doi.org/10.22452/AJAP.vol9no1.5

DhaifAllah, B., Md-Auzair, S., Maelah, R., & Ismail, M. D. (2019). The effect of product complexity and communication quality on IOCM and OBA in buyer–supplier relationships. *Journal of Accounting & Organizational Change*, *16*(1), 1-29. http://dx.doi.org/10.1108/JAOC-04-2017-0035

Donaldson, L. (1999). Teoria da contingência estrutural. In *Handbook de Estudos Organizacionais* (pp. 105-133). São Paulo: Atlas.

Duarte, S. L. (2017). *Gestão de custos interorganizacionais em organizações cooperativas e investor owned firms (IOFs) no setor de cafeicultura no Brasil.* (Doctoral Thesis in Science). Universidade de São Paulo, São Paulo, SP, Brazil. http://dx.doi.org/10.11606/T.12.2017.TDE-14062017-104903

Faria, A. C. D., Soares, I. C., Rocha, W., & Rossi, G. B. (2013). A prática da gestão de custos interorganizacionais em uma montadora de veículos na Região do Grande ABC. *Revista Brasileira de Gestão de Negócios, 15*(49), 617-638. http://dx.doi.org/10.7819/rbgn.v15i49.1228.

Farias, R. A. S.; Gasparetto, V. (2015). Gestão de Custos Interorganizacionais: Um Estudo

Bibliométrico. *Sociedade, Contabilidade e Gestão, 10*(3), 80-104. http://dx.doi.org/10.21446/scg_ufrj.v10i3.13363

Fayard, D., Lee, L. S., Leitch, R. A., & Kettinger, W. J. (2012). Effect of internal cost management, information systems integration, and absorptive capacity on inter-organizational cost management in supply chains. *Accounting, Organizations and Society, 37*(3), 168-187. http://dx.doi.org/10.1016/j.aos.2012.02.001

Fehr, L.; Rocha, W. (2018). Open-book accounting and trust: influence on buyer-supplier relationship. *RAUSP Management Journal*, 53(4), 597-621. http://dx.doi.org/10.1108/rausp-06-2018-0034

Fonte, M., & Cucco, I. (2017). Cooperatives and alternative food networks in Italy. The long road towards a social economy in agriculture. *Journal of Rural Studies, 53*, 291-302. http://dx.doi.org/10.1016/j.jrurstud.2017.01.019

Franken J.R.V., Cook M.L. (2015) Informing Measurement of Cooperative Performance. In: Windsperger J., Cliquet G., Ehrmann T., Hendrikse G. (Eds.), *Interfirm Networks* (pp. 209-226). Springer, Cham. http://dx.doi.org/10.1007/978-3-319-10184-2_11

Galerani, J. (2003). Formação, estruturação e implementação de aliança estratégica entre empresas cooperativas. *RAE-eletrônica, 2*(1), 1-16. Retrieved on December 04, 2019, from https://rae.fgv.br/sites/rae.fgv.br/files/artigos/10.1590_S1676-56482003000100014.pdf

Grashuis, J., & Su, Y. (2019). A review of the empirical literature on farmer cooperatives: Performance, ownership and governance, finance, and member attitude. *Annals of Public and Cooperative Economics, 90*(1), 77-102. http://dx.doi.org/10.1111/apce.12205

Hannachi, M., Coleno, F., & Assens, C. (2020). The "new agricultural collectivism": How cooperatives horizontal coordination drive multi-stakeholders self-organization. *Journal of Co-operative Organization and Management, 8*(2). http://dx.doi.org/10.1016/j.jcom.2020.100111

International Co-operative Alliance (2015). *Notas de orientación para los principios cooperativos*. Retrieved on January 7, 2020, from https://www.ica.coop/es/medios/biblioteca/research-and-reviews/notas-orientacion-principios-cooperativos

Kajuter, P., & Kulmala, H. I. (2005). Open-book accounting in networks: Potential achievements and reasons for failures. *Management Accounting Research, 16*(2), 179-204. http://dx.doi.org/10.1016/j.mar.2005.01.003

Konzen, R. R. P., & Oliveira, C. A. O. (2015). Intercooperação entre cooperativas: barreiras e desafios a serem superados. *Revista de Gestão e Organizações Cooperativas, 2*(4), 45-58. https://dx.doi.org/10.5902/2359043220410

Klotzle, M. C. (2002). Alianças estratégicas: conceito e teoria. *Revista de Administração Contemporânea*, 6(1), 85-104. http://dx.doi.org/10.1590/S1415-65552002000100006

Lago, A. (2009). *Fatores condicionantes do desenvolvimento de relacionamentos intercooperativos no cooperativismo agropecuário.* (Doctoral Thesis in Agribusiness). Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil. Retrieved on January 13, 2020, from http://hdl.handle.net/10183/18439

Lago, A., & Silva, T. N. (2012). Condicionantes do desenvolvimento de relacionamentos intercooperativos no cooperativismo agropecuário. *Organizações Rurais & Agroindustriais, 14*(2), 212-226. Retrieved on January 13, 2020, from http://revista.dae.ufla.br/index.php/ora/article/view/509

Martins, D. M., Faria, A. C., Prearo, L. C., & Arruda, A. G. S. (2017). The level of influence of trust, commitment, cooperation, and power in the interorganizational relationships of Brazilian credit cooperatives. *Revista de Administração, 52*(1), 47-58. http://dx.doi.org/10.1016/j.rausp.2016.09.003.

Mendina, H. J. C., de Menezes Lima, J. J., de Souza, L. G., & Milan, G. S. (2019). Intercooperação em uma rede de cooperativas agroalimentares da cadeia do leite no Paraná. *Revista em Agronegócio e Meio Ambiente, 12*(4), 1439-1464. http://dx.doi.org/10.17765/2176-9168.2019v12n4p1439-1464

Möller, K., Windolph, M., & Isbruch, F. (2011). The effect of relational factors on open-book accounting and inter-organizational cost management in buyer–supplier partnerships. *Journal of Purchasing and Supply Management, 17*(2), 121-131. http://dx.doi.org/10.1016/j.pursup.2011.01.002

Organização das Cooperativas Brasileiras (2020). Retrieved on January 10, 2020, from https://www.ocb.org.br/o-que-e-cooperativismo

Otley, D. (2016). The contingency theory of management accounting and control: 1980–2014. *Management Accounting Research, 31*, 45-62. http://dx.doi.org/10.1016/j.mar.2016.02.001

Pérez, A. M. G.; Cervantes, C. R.; Martínez, M. G. (2016). De la Cooperativa Agroalimentaria a la "Learning Netchain". Hacia un Planteamiento Teórico Interorganizativo e Interpersonal Revesco. *Revista de Estudios Cooperativos, 121*, 114-144. ttps://doi.org/10.5209/rev_REVE.2016.v121.51304

Pernot, E., & Roodhooft, F. (2014). The impact of inter-organizational management control systems on performance: A retrospective case study of an automotive supplier relationship. *International Journal of Production Economics, 158,* 156-170. http://dx.doi.org/10.1016/j.ijpe.2014.07.029

Severino, A. J. (2007). *Metodologia do trabalho cientifico* (23a ed.). São Paulo: Cortez.

Souza, B. C. (2008). *Fatores condicionantes da gestão de custos interorganizacionais* (Master's Dissertation in Controllership and Accounting). Universidade de São Paulo, São Paulo, SP, Brazil. http://dx.doi.org/10.11606/D.12.2008.tde-07042008-225007

Souza, G. S. (2016). *Relações interorganizacionais no agronegócio do leite em minas gerais: análise de uma netchain* (Doctoral Thesis in Administration). Universidade Federal de Lavras, Lavras, MG, Brazil. Retrieved on January 03, 2020, from http://repositorio.ufla.br/jspui/handle/1/11730

Uddin, M. B. (2013). Techniques of interorganizational cost management: a review essay. *Journal of Statistics and Management Systems, 16*(1), 89-108. http://dx.doi.org/10.1080/09720510.2013.777577

Windolph, M., & Moeller, K. (2012). Open-book accounting: Reason for failure of inter-firm cooperation? *Management Accounting Research, 23*(1), 47-60. http://dx.doi.org/10.1016/j.mar.2011.07.001