# Communication Strategies in Agricultural Cooperatives Theoretical Approach 

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#### Abstract

Communication is an important element in the governance of organizations. In most research on the development and maintenance of successful cooperatives, effective communication with and between members is an ongoing issue. In cooperatives, or more specifically in agricultural cooperatives, subject of this study, inadequate communication strategies may be one of the reasons for organization failure. When inconsistent and ineffective, it offers a gap for disconnection between members and the organization. Some authors also argue that communication is an important mechanism able on improving the members' commitment to the cooperative. Despite this, agricultural cooperatives are somewhat slow to incorporate more diverse and effective communication strategies to reach their varied audience. The aim of this research is to explore the forms and communication strategies existing in agricultural cooperatives and the theoretical approaches used to analyze communication in these companies. It therefore consists of a theoretical study carried out through a systematic review of the literature. Thereby, it is intended to answer the following research questions: which communication strategies are adopted by agricultural cooperatives and which theoretical background gives raise to analyses regarding communication issues in these organizations?


Keywords: communication strategy; members; agricultural cooperatives; theoretical approach

## 1 Introduction

Cooperative organizations are companies owned by their users (rural producers) (Staatz, 1987) in which the subscription of capital does not constitute the basis of voting power (Levay, 1983). The governance structure of these organizations is governed by the democratic principle of 'one member, one vote' (Staatz, 1997; Nilsson, 2001; Jansen et al. 2018). This characteristic ensures that cooperatives exist to meet the objectives of their members (Österberg and Nilsson, 2009).

Overall, cooperatives are organizations that differ from other forms of enterprises due to the characteristics of the society that allow members to be simultaneously owner, user and consumer of services and products of the cooperative (Levay, 1983; Cook, 1995; Zylbersztajn, 2002; Pivoto, 2013), and due to the control right, that is not linked to the income right (Costa, 2010). In this way, the benefits received from the cooperative society by the farmers are non-proportional to the invested capital, but to the business transactions that each member make with the cooperative (Staatz, 1997), and the income is shared by every member equally and not based on the shares (Pivoto et al. 2015).

As a result of these characteristics, agricultural cooperatives have vaguely defined property rights (Cook, 1995; Costa, 2010). Diffuse property rights can expose agricultural cooperatives to five general problems that arise as they develop themselves, such as the horizon problem, free-ride problem, control problem, portfolio problem and the costs of influence (Cook, 1995). These problems intensify when the organizational characteristics of the cooperative structure become more complex. Likewise, democratic control by members is something that becomes increasingly difficult as cooperatives become large and complex (Nilsson, 2001).

The dynamic changes that occur in the food sector affect all the food supply chain, including agricultural cooperatives (Hakelius and Hansson, 2016). Considering this, cooperatives need to face major changes to
survive in the long run (Trechter et al. 2002). Over time, the cooperative's commercial activities can become large and complex, due to its adaptation to intensified competition, and the members can grow in number and show greater heterogeneity of preferences (Feng et al. 2016). These issues can make it difficult for members to understand the cooperative activities and weaken their ability to control the cooperative and influence decision making (Cook, 1995; Bager, 1996; Harte, 1997) giving rise to the monitoring problem (Hakelius and Hansson, 2016). Also, members' lack of information makes it more difficult to control managers and to democratically govern the organization. This hinders the participation of the members in the cooperative governance and probably affect their satisfaction with the organization and its managers (Arcas et al. 2014).

When the cooperative reaches this point, it may present a context of passive members, that is, members uninterested in the cooperative's affairs and hardly informed (Nilsson et al. 2009). In this case, the management works independently of the members interests (Hogeland, 2006). However, if the board of a cooperative facing such problems is unable to think on changes to the (re)inclusion of members in the cooperative governance, possible changes in the ownership and governance structure may occur and the cooperative will possibly be transformed in another organizational form (Nilsson et al. 2009)

In general, as an alternative to the challenges of institutional complexity, organizations adopt structures that promote greater communication, transparency, and participation in decisions (Schedler and RüeggStürm, 2014). Communication is an essential means to keep the cooperative working in the interests of its members (Peng et al. 2018) and to safeguard against opportunist behaviors (Uzzi, 1996) and complete control takeover of management (Hogeland, 2006).

Additionally, communication between members and with management is an aspect of great relevance to mitigate the effects of, and deal with the heterogeneity of members' preferences, having the main function of bringing together members of the organization (Iliopoulos et al. 2019). In fact, inconsistent and ineffective communication offers an opportunity for the lack of transparency and misalignment between members and the organization (Brown et al. 2013). Communication is also an important issue to be considered when a firm needs to build reputation among its members (Graça and Arnaldo, 2016).

Thus, this paper aims to explore the forms of communication existing and the communication strategies adopted in agricultural cooperatives. Additionally, we also sought to identify the theoretical approaches that underlie the analysis of communication in agricultural cooperatives. Thus, this study aims to answer the following research questions: What are the existing forms of communication in agricultural cooperatives? What strategies of communication with members have been adopted by these organizations? What theoretical background gives raise to research on communication in agricultural cooperatives?

The paper is structured as follow. Firstly, the methods used to identify relevant studies with the theme of communication in agricultural cooperatives are outlined. The second part of this paper is rooted in the discussions of the literature review analysis. Finally, the final remarks are presented.

## 2 Methodology

The focus of this study was to find in the international databases empirical articles about communication in agricultural cooperatives. However, what we found was an absence in the literature on this theme. The very few empirical studies included in the analysis cover mainly the papers that give raise and motivation to this research. Thus, after a meticulous search, the authors decided to also include studies that addressed the theme of communication in agricultural cooperatives, especially between the members and the management, in the following sections of the studies: theoretical discussion, results, analysis and final considerations.

The method of systematic review adopted here is that of integrative literature review, which is considered appropriate when the researcher wishes to approach the problem and draw an overview of the scientific production of a particular phenomenon. This is a necessary step in structuring a research field (EasterbySmith et al. 2010). This method employs a more transparent article selection process that increases the rigor of the study and reduces the effects of the researcher's bias (Tranfield et al. 2003).

The literature analyzed here comprises peer-reviewed articles in English and published in academic journals. Regarding data collection, four databases were used: Web of Science (Core Collection), Scopus, Emerald Insight and Wiley Online Library. These databases are the main ones used in the business and administration area. The search string used in the searches were "agricultural cooperative", "member communication", "member information", "member relationship" and "farmer information". When
combining the two search keywords (agricultural cooperative and communication), 4 combinations of entries were obtained. The research was made through 'Article title, summary, keywords' field in all databases.

Initially, 313 accesses were obtained. After eliminating duplicate articles, 209 left to apply the inclusion and exclusion criteria. A first-round selection was made based on titles and abstracts. In this first moment, the exclusion criteria used were: (E1) The subject of study is not cooperative organizations, (E2) The study does not address a discussion about communication or exchange of information in agricultural cooperatives, (E3) The study does not address cooperative/member or cooperative/management relationship, (E4) The study is about the use of communication and information tools for electronic commerce, (E5) The study cover aspects related to the use of communication and information tools with the purpose of management of the farm, (E6) Are studies in the area of agricultural production and use of fertilizers and pesticides (E7) Is about communication in B2B relations and (E8) Is about communication of information on traceability in the value chain and food security (E9) The study is about empirical communication between agricultural cooperatives. After applying these criteria, it remained 65 articles.

Then, the selection of the second round was made by screening the full text of the articles and evaluating their quality. Theoretical or empirical articles which the object of study was not communication, and which did not address a discussion about the importance of communication and information exchange between members and the cooperative in its theoretical framework, in the, analysis, results and discussions or in the conclusions were excluded from the review. At the end, only 9 journal's articles were selected to be analyzed.

However, as mentioned before 3 studies that motivated this research were also included in the analysis. The first study was published in a conference proceeding and the two others published in journals. These studies were also very cited on some of the articles selected in the review. Additionally, it was made a quick search at Scholar Google using the string 'communication AND cooperatives', only the first ten pages were consulted, and 5 more articles added to the review. Thus, it was selected a total of 17 articles to the next stage of the research.

The papers analysis encompasses three aspects, each one designed to reach the purpose of this paper and answer the questions proposed. The first aspect aimed to analyze the forms of communication that exist in agricultural cooperatives. The second aspect was related to the communication strategies that have been adopted by agricultural cooperatives. The last aspect aimed to explore the theoretical approaches that give rise to the discussion about the need of communication strategies in agricultural cooperatives. The next sections comprise the analysis of these three aspects in the selected articles.

## 3 Forms of communication in agricultural cooperatives

Although communication is present in any organization, agricultural cooperatives, because its peculiar characteristics, may have different forms of communication with its public, especially its internal public. According to Deng et al. (2020), an agricultural cooperative is formed by a group of farmers voluntarily engaged in achieve their collective goals and interests. Due to this characteristic, members may be involved in horizontal relationships and interactions between themselves, but also in vertical connections with the cooperative organization and its managers.

In the same way, following the explanation of Cremer et al. (2007) and Garicano and Wu (2012) of horizontal and vertical organizational communication, Peng et al. (2018) analyzed the communication within agricultural cooperatives in the Netherlands. They examined how this both forms of communication contributed to process and product innovation and how it differed between cooperatives with two different governance structures.

The horizontal communication, also termed intra-organizational communication (Dobriki and Lips, 2012), in agricultural cooperatives is related to the exchange of information between members. The vertical communication, in turn, is characterized as the exchange of information between the members and the cooperative (Peng et al. 2018), represented by the professional management or the president of the board of directors in traditional and extended traditional cooperatives (Chaddad and Iliopoulos, 2013). In cooperative organizations both types of communication are important (Cechin et al. 2013a). Horizontal communication can promote production process innovation while vertical communication generates product innovation (Peng et al. 2018). However, as noted in the study of Cechin et al. (2013b), vertical communication is also a mechanism for coordinating the quality of the farmers production process in agricultural cooperatives producing poultry.

In this sense, the members usually communicate between themselves to exchange technical information about production processes, and, when it turns to communicating with the cooperative, the relationship is rooted in obtaining detailed information of product innovation and about the market. However, horizontal communication may also include exchanging information and making decisions on the firm's management in general assemblies (Chaddad and Iliopoulos, 2013) and vertical communication may also encompass a member behavior of participation in the governance of the cooperative, as termed by Xiang and Sumelius (2010).

Also, horizontal communication is strongly related to building social networks in the cooperative organization (Deng et al. 2020) and greater the level of participation of members in the decision-making process (Barraud-Didier et al. 2012). Regarding this, members who have a more active, that is, more frequent and intense participation in the governance of the cooperative, may influence the cooperative's strategy and decision making because of their influence over other members (Verhees et al. 2015). Those are members who usually make things happen in the organization when the level of horizontal communication is high (Peng et al. 2018).

In general, there are plenty studies worried about vertical communication between members and the management in agricultural cooperatives (e.g., Trechter et al. 2002; Xiang and Sumelius, 2010; KeelingBond and Bhuyan, 2011; Brown et al. 2013; Verhees et al. 2015; Graça and Arnaldo, 2016; Susanty et al. 2017). Those studies, in their majority emphasize that a clear communication between the management and the members may influence in a positive attitude of the members with the cooperative (Bhuyan, 2007), such as member commitment (Trechter et al. 2002), even if this influence happens indirectly, i.e., by the influence of a good communication on members satisfaction and trust, usual predictors in the literature of a member positive attitude. Indeed, information-sharing between members and the cooperative is a ground to member commitment, motivation, and involvement in the governance of the cooperative (Barraud-Didier et al. 2012). Also, Xiang and Sumelius (2010) argue that the inexistence of enough communication between member and managers damages the member satisfaction and behavior in the cooperative

On the other hand, horizontal communication among members in agricultural cooperatives has been less studied by researchers (e.g., Dobriki and Lips, 2012; Chaddad and Iliopoulos, 2013), some researchers have even explored both horizontal and vertical communication together (e.g., lliopoulos and Valentinov, 2017; Peng et al. 2018; Deng et al. 2020). Regarding communication among members, Chaddad and Iliopoulos (2013) sought to know if members communicating to exchange information and make decisions posed significant challenges on the control costs of two different governance models in cooperatives. Dobriki and Lips (2012) on the other hand, tried to measure the quality of information exchange and communication between farmers of a cooperative through a questionnaire developed by Roberts and O'Reilly (1974).

Horizontal communication also has been studied by the term of Word-of-Mouth communication, that is, as a marketing communication in agricultural cooperatives, the informal communication between the parties regarding the assessment of goods and services to build attachment and fidelity to the cooperative services and products (Mazzarol et al. 2019). Following this, Graça and Arnaldo (2016), also state that a good communication among members and between the members and the board of directors may build reputation to the organization and enhance members' loyalty.

After reviewing these forms of internal communication most cited in the literature in agricultural cooperatives, the next section explores the empirical research on communication in agricultural cooperatives. The aim of this section is to describe and analyze the main communication strategies adopted by cooperatives to improve their relationship with the members.

## 4 Communication strategies adopted by agricultural cooperatives

Cooperatives are organizations created to serve the interests of its members (Bhuyan, 2007). This way, it is important that the members perceive that the cooperative is acting in their interests. The communication strategy is a mean by which the cooperative can assure transparency to its members and keep them informed about what is happening concerning the organization they are owners.

Sharma and Patterson (1999) assume that communication refers to the formal and informal distribution of clear, consistent, and timely information to a specific public. In this sense, communication between members and between members and the cooperative may be fostered through formal or informal communication means (Brown et al. 2013). Moreover, as members may assume different roles in the cooperative and diverge in their interests and characteristics, they may also have different preferences
related to the means of stay informed about the cooperative issues (Trechter et al. 2002; Keeling-Bond and Bhuyan, 2011).

It was noticed in the work of Brown et al. (2013) and Peng et al. (2018) that agricultural cooperatives still rely on personal and informal information exchange between the members and the cooperative. The study of Peng et al. (2018) shows that despite a formal newsletter sent every week to members, most of the communication between manager and farmers is done by phone calls or farm visits, even lf only occasionally, as in the case of the second cooperative studied.

Since the beginning of the cooperative movement, vehicles of communication explored by cooperatives rely on newsletters and personal meetings (as the annual meetings or member meetings) and other written materials (Haigh, 2000). Other traditional channels of communication frequently used were phone calls, face-to-face communication, and text messages. Nonetheless, over the years, agricultural cooperatives started implementing other communication strategies such as websites and the creation of members groups to discuss specific issues (Trechter et al. 2002). From 2010, digital tools of communication have begun being used as a method to reach a more diversified member (Brown et al. 2013). These new tools were being used as complements to the traditional communication methods and included mostly email, texting, websites, and electronic newsletters (Keeling-Bond and Bhuyan, 2011). For example, Brown et al. (2013) results demonstrate that although the frequency of newsletters is low, generally published quarterly or less than twice a year, electronic newsletters (e-newsletters) are growing continuously and being released monthly via email as a lower expensive alternative.

In addition, according to Brown et al. (2013), although some cooperatives are present on social media such as Facebook, Twitter, YouTube and blogs, this presence is still extremely limited. This characteristic may be due the dominance by older generation in agricultural cooperatives. However, although these channels are not yet widely used, they may serve as an alternative to attract youngest members or even a strategy to involve more the family members in the cooperative issues. Besides that, online presence of cooperatives and the use of digital sources of communication are essential in maintaining and building relationships between the cooperative and its members. Digital sources of communication can also be used to reduce the geographical distance between members and the cooperative and are a less costly alternative, specially, it optimizes the time for exchanging information (Keeling-Bond and Bhuyan, 2011).

According to Trechter et al. (2002), cooperative members appear to have more preference to newsletters as primary channel of communication, while the use of websites is complementary to this channel. In this same study, the authors find out that annual meetings and board meetings are the least valued source of information by the members. This may be one of the reasons the frequency of members in these meetings have been decreasing year by year. The authors also showed that website seems to be a substitute for information acquired in board meetings and for communication with the manager, especially when cooperatives get larger.

In sum, as seen so far, communication channels used by agricultural cooperatives to share information with their members can be separated into two aspects: (1) more traditional and personal means and (2) digital means or channels which employ the use of more modern technologies such as the internet, electronic devices, and social media. All the possible channels of communication gathered through this review are disposed in Figure 1 and ordered by its usage in agricultural cooperatives.


Figure 1. Main channels of communication adopted by agricultural cooperatives

Nonetheless, in the next years we may watch traditional channels of communication being replaced by modern channels in cooperatives overall. According to Arcas et al. (2014) the use of channels related to information and communication technology (ICT) could be a good option to improve information exchange and sharing in cooperatives. Besides that, the use of ICTs to exchange information with members may face problems, since there may be resistance or displeasure from farmers regarding the internet use (Peng et al. 2018). In fact, despite of the many benefits that digital communication tools may offer, the cooperative must be careful using these technologies and try to combine them with more traditional and personal methods of communication (Keeling-Bond and Bhuyan, 2011).

Indeed, in the beginning of the 2000's simple and non-technological communication techniques were strong related to member commitment while electronic communications, such as emails and the use of websites had an unfavorable impact on members behavior serving only as complements to the traditional sources of information (Trechter et al. 2002). However, Keeling-Bond and Bhuyan (2011) noticed that, as technology advances, more farmers started using digital resources to be informed, especially the youngest. Besides that, the oldest still rely on traditional means of communication. Depending on members ages and their preferences of communication tools, formal and informal communication should be explored through traditional and digital channels to maintain and build relationships between the cooperative and the members (Brown et al. 2013).

In general, Brown et al. (2013) explicit that most cooperatives continue to use newsletters, face-to-face contact and websites as the most common communication means to reach their members, but also incorporated e-newsletters to reach a more diverse public and reduce communication costs. Moreover, with the digital revolution in the last years, the number of farmers using digital platforms to obtain information has increased, what justifies the use of more modern and online channels to share information.

Hence, the most popular channel of communication in agricultural cooperatives to correspond with members is face-to-face (or personal) communication jointly with e-newsletters. The second most used strategy of communicating with members are phone calls, annual meetings, group meetings and text messages. On the other hand, the least used means of communication are websites and even social medias as can be seen in Figure 2.


Figure 2. Popular channels of communication in agricultural cooperatives

Managers must also be aware of the content of the information shared on newsletters and websites to draw members' attention and keep them informed with information they judge relevant and necessary. The study of Brown et al. (2013) points out that managers and board members' most valued communication pack include information of members responsibilities and benefits, the cooperative goals and purpose, and news related to the industry and market trends. When it comes to members information preferences, it seems that industry news and market trends are the most valued once most USA agricultural cooperative websites share mostly this content. In contrast, information about cooperative governance, which includes members responsibilities and benefits and information on patronage refunds and retained equity, is the least shared message to members.

Following this argument, it is essential to know the members well (Verhees et al. 2015) for agricultural cooperatives to incorporate more diversified and effective communication strategies. Additionally, it is worthy to know that the last one involves not only an extended portfolio of communication channels, but rather plans to reach multiple members (Brown et al. 2013) once each group of members respond differently to each communication strategy (Trechter et al. 2002).

A particularly important aspect about communication is how much members are opened to communicate. This seems to be a prerequisite for all other aspects involving communication because information only can be communicated if the intended recipient is open to receive it (Dobriki and Lips, 2012). If not, then communication efforts made by the cooperative will be in vain. This argument highlights more the importance of a survey with members about their communication preferences and about the factors that may influence their willingness to communicate with the cooperative leaders and managers, as done in the study of Bhuyan (2007) and Xiang and Sumelius (2010).

Communication strategies involving the exchange of information between members are scarce in this literature. Trechter et al. (2002) state that this form of communication is somewhat problematic for the cooperative since the quality of the information exchanged is uncertain. Perhaps studies about collective action may explain more the use of communication tools in horizontal communication in agricultural cooperatives.

The next section analyzes the theoretical approaches that give rise to the discussion about communication in agricultural cooperatives. The purpose of this analysis is to find out under which theoretical lenses is it possible to analyze issues related to communication in these organizations.

## 5 Theoretical approaches behind communication in agricultural cooperatives

In most of the literature involving agency problems, collective action problems and problems related to vaguely defined property rights in agricultural cooperatives, one of the main factors that help to mitigate control and decision-making problems, free riding and opportunistic behavior includes effective communication between the members and especially between the members and the cooperative as it is discussed below.

In the literature about "people factor" in agricultural cooperatives, the lack of proper communication strategies is the primary reason of the misunderstanding between the members and the cooperative managers (Bhuyan, 2007). Indeed, most of the studies which highlights the importance of well-designed communication strategies are worried about members' behavior in the cooperative (e.g., Bijman and Verhees, 2011) and the building of social capital.

The studies reviewed demonstrate that the horizontal communication is a form that cooperatives find to secure the existence of social capital in the organization. Social capital and communication are connected in a way that an increase in one of them facilitates the increase in the other. Deng et al (2020) emphasize that social capital has its advantages for members and the cooperative because of the existence of a social network that creates a platform for information sharing and exchange and because it facilitates effective communication and shared vision among members. Hendrikse and Feng (2013) also argue that a better communication increases the level of mutual understanding between members. In this way, members use their communicative competence to achieve mutual understanding (Iliopoulos and Valentinov, 2017). In addition, as stated by Iliopoulos and Valentinov (2017), from the moment that happens a rupture in members communication, cooperatives are likely to experience collective action dilemmas and the problems involving the vaguely defined property rights such as the free-rider problem and opportunism.

It was also noted that communication is a mean which can influence the building of trust in the farmers relationship with the cooperative (Verhees et al. 2015; Susanty et al. 2017). In this sense, communication is a factor that builds trust, which is fundamental to influence the members' involvement and commitment to the cooperative (Verhees et al. 2015). Furthermore, trust also influence the level of communication, once trusting relations leads to a higher frequency of information exchange as well as richer and potentially more valuable information (Deng et al. 2020). Rather than this, communication is also an intensifier of corporate reputation, as identified by Graça and Arnaldo (2016)

Communication in agricultural cooperatives was also studied through the lens of transaction cost economics and associated to different cooperative governance structures (Peng et al. 2018) and termed as hierarchy mechanisms (Cechin et al. 2013a). In the study of Peng et al. (2018), product innovation and improvement were more related to vertical communication with the management and a more centralized governance structure, while process innovation was rooted in horizontal communication, exchange of technical information about the production process and a decentralized governance structure. The (de)centralized structure of the cooperative is relative to the allocation of decision rights, that is, how much power the members delegate to the manager in terms of decision about product innovation and production decisions.

Furthermore, Cechin et al. (2013a) conclude that the communication on quality improvement between farmers and the cooperative, i.e., the vertical communication, may be a useful hierarchy mechanism to higher product quality in cooperative organizations. Because of this hierarchical coordination, vertical communication becomes an important tool to enhance farmers' commitment to a customer-oriented strategy. Also, Trechter et al. (2002) found that a good communication of the members with the managers of the cooperative is strongly related to member commitment with the agricultural cooperative, in a way that members who communicate more with the management are more likely to be faithful and deliver their products and make transactions with the cooperative.

Cechin et al. (2013a) show that when members have a high frequency of information exchange with the cooperative, they are more committed to a customer-oriented strategy. In this sense, vertical communication enhances the customer-oriented strategies in cooperatives and promotes competition between members (Peng et al. 2018). On the other hand, horizontal communication enhances the collective action. Following this argument, horizontal communication may be a strengthening of collective action through the community mechanism of involvement, i.e., a mechanism that encompasses the members' involvement in the governance of the cooperative and family involvement in training courses and specific committees (Cechin et al. 2013a).

Another theoretical field exploring the importance of communication in agricultural cooperatives is the Agency Theory. In the study of Arcas et al. (2014) communication is an important aspect, mostly seen from the perspective of Principal-Agent problems, which can be a mechanism to mitigate the information asymmetry, a characteristic clearly existent in the relationship between farmers and the cooperative. This relationship is often based on information asymmetries because 1. the cooperative has information about market prices, new technologies and consumer's behavior which the members do not, and 2. when cooperatives are constantly growing, the members become more heterogeneous in terms of their preferences, then decision problems emerge as it becomes increasingly difficult to managers or directors to understand, be aware and bear with all the members needs and wants (Cook and Iliopoulos, 2016, Hakelius and Hansson, 2016).

In the study of Arcas et al. (2014) communication is synonymous of sharing information to reduce information asymmetry in member-cooperative relationships. It is a governance mechanism capable of reducing agency problems, especially the decision and follow-up problems, through increasing members' satisfaction with the cooperative organization and business. The authors argue that sharing information
with members, that is, the degree of information the members receive about the cooperative, is a factor which may positively influence member's satisfaction and, therefore, the continuity of the relationship [the transactions with the cooperative]. Their results show that the more information acquired by the members, the more they will be satisfied with the cooperative. In this sense, it is important that cooperatives adopt strategies to improve all channels of communication with their members to ensure quick flows and frequency of information exchange to keep the members well informed about subjects regarding the cooperative organization, such as governance, social and business aspects.

It is also important to the cooperative having information about the members preferences. That is, a contrary flow of information is also necessary, once information about members' ambitions is essential to the management of the cooperative (Verhees et al. 2015). Hereupon, the development of information channels in cooperatives may reduce the agency problems, especially through achieving better trust, commitment, and involvement of the members with the cooperative and reducing the conflicts between members and the management (Arcas et al. 2014). Furthermore, according to Chaddad and Iliopoulos (2013), members communicating to exchange information and make decisions is also a form of monitoring the management. In this sense, as members' interests become more heterogeneous and the cooperative grows in size and complexity, members find it difficult to understand the various aspects involving the cooperative, which leads to reducing their monitoring efforts and increasing costs of monitoring the management.

At large, when it comes to communication between the members and the cooperative, the most explored theoretical framework is agency theory and its problems related to the lack of information between the parties, information asymmetry and ownership costs (Cook and Iliopoulos, 2016). It is also worthy to note that there is a discussion of communication in the transaction costs economy as a powerful coordination mechanism to improve quality and, consequently, reduce coordination costs, especially in broiler production cooperatives (e.g., Cechin et al. 2013b). Thirdly, communication is also a factor explored by social capital theory as a mean to build member trust, commitment, and involvement in the governance of agricultural cooperatives (e.g., Trechter, King and Walsh, 2002 and Xiang and Sumelius, 2010). Finally, more recently, together with the literature on social capital, Deng et al. (2020) developed a study about the members relationships, and consequently, the exchange of information and communication in the cooperative organization through the lens of social networks.

## 6 Final Remarks

The purpose of this paper was examining the communication strategies adopted between the members and the cooperative, i.e., the internal communication in agricultural cooperatives. As noted in the literature review, few studies have empirically examined aspects of communication with members in agricultural cooperative contexts, even though its importance to member commitment and involvement to the co-op and building of trust and transparency between members and the management.

Nevertheless, the cooperative must establish good channels and means of communication with all its stakeholders, including its employees, non-members, and the cooperative's external clients, i.e., the final customer of the cooperative's products or processor companies. Towards the latter there is a vast literature, especially studies developed in Spain, which bring this perspective of communication in agricultural cooperatives. Although those studies were not considered in this research it is also worthy to understand these forms of communication specially because cooperatives appear to put more efforts in online communication with these groups.

Furthermore, this research did not investigate the communication aspects of horizontal relationships so deeply. Studies focused on this type of horizontal interaction between members of the cooperative address issues such as organizational culture, cooperative education, training, sense of belonging to the group and others. As the subject of the article was the member-cooperative relationship, this type of communication was not explored in depth. However, it is hypothesized that this kind of relationship occur mainly through more informal communication means as personal contacts (lliopoulos and Valentinov, 2017).

At large, studies about communication strategies adopted in agricultural cooperatives aimed in determining the effectiveness of communication tools implemented by the organizations to communicate the firms' value package to their members (e.g., Brown et al. 2013). However, there is an absence in the literature of communication in agricultural cooperatives of studies which explore the use of different communication methods, especially more modern and technological means to enhance the members involvement in the governance of the cooperative. For future works, researchers may explore this
relationship between digital communication and members involvement in the governance of cooperatives more in depth. Specially because it is important to maintain all heterogeneous members-owners aware of what is going on in the collective owned organization and because it is a way to keep members satisfied with the organization.

Another lack in the literature of communication strategies in agricultural cooperatives involve the implementation of information and communication technologies (ICTs) to facilitate the decision-making process in these organizations. New communication technology could also reduce the costs of voting in the General Assemblies (Xiang and Sumelius, 2010). In our review only the study of Ahabyoona et al. (2019), developed in Uganda, applied the use of ICTs to facilitate the process of credit facilitation decision making in agricultural cooperatives. It is worthy to note that there is a growing knowledge area, known as Decision Enhancement, highlighting the adoption of ICTs to facilitate the decision challenges and improve the decision-making in complex and unstructured organizational systems as cooperatives may be. It was also noted that the theoretical backgrounds that give raise to research about communication in agricultural cooperatives are both strictly related

Our final remarks are that cooperatives should not have few means of communicating with their members. Instead, to reach all members profiles and preferences, cooperatives must invest in a mixed strategy of communication channels. Our explorative study suggests that newer electronic methods of communication may not have a great potential alone, but when put together with traditional communication vehicles, they might be a strong source of information sharing in agricultural cooperatives. Nonetheless, first cooperatives should do a member survey to know what the members preferences regarding the content and frequency of shared information are and about their preferable means of getting that information from the cooperative

It is also interesting to assess if members are willing to substitute personal contact with the board and managers or even in the general assemblies with other members for more electronic means of sharing information and making decisions regarding the cooperative governance. In this way, the cooperative relations, and forms of exchanging information and making decisions may be re-evaluated. Further research can also evaluate the role of more modern electronic means of communication, such as social media and online platforms, to find out if they work as complements or substitutes of more traditional communication channels in these organizations.

Finally, for sure the communication strategies adopted by different cooperatives are not the same. In some cooperatives traditional communication tools may prevail while in others can exist a balance between modern electronic communication tactics and traditional ones or, perhaps, in the light of the technological advance of recent years, some cooperatives could be more advanced in exploring digital communication channels in comparison to others.

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