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Success and failure factors in agricultural cooperatives

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ABSTRACT

The paper presents an integrated framework of success and failure factors of agricultural cooperatives and its applicability based on a review of recent literature and an illustrative case study. We identify six categories of success and failure factors: the societal environment, quality of management, strategy, member base, commitment, and product aspects. Contrary to expectations that failure factors mirror success factors, the framework shows that the two represent distinctive features in at least some of the distinguished categories. The analysis of an agricultural cooperative in Peru, selected and presented as an illustrative case study, shows the applicability of the framework for the analysis of success and failure factors of cooperatives.

Keywords: *Agricultural cooperatives; success factors; failure factors; conceptual framework.*

1 Introduction

Improving market access for smallholder farmers is an important element in strategies that aim to reduce poverty (Fischer and Qaim, 2012; Gyau et al., 2014). A strategy to improve smallholder's livelihoods is their linkage to high-value markets, where the returns are higher than in standard commodities markets (Arinloye et al., 2015; Barrett, 2008; Hellin et al., 2011; Markelova and Mwangi, 2010). Access to these markets, especially to international markets, is difficult for smallholders in developing countries. Buyers in these markets are very demanding and strict regarding quality, cost and delivery (Humphrey and Schmitz, 2001; Reardon et al., 2009). It is difficult for individual smallholders from developing countries to meet these buyers' demands: Very often farmers live in remote areas with poor infrastructure, have a low educational level, face health uncertainty, and have limited access to services like agricultural extension (Fischer and Qaim, 2012; Poulton et al., 2010). One way for smallholder farmers to overcome these barriers and gain access to high-value markets is to pool their activities in farmer organizations like cooperatives (Fischer and Qaim, 2012; Markelova and Mwangi, 2010).

A cooperative is a unique type of organization that is owned by, controlled by, and created for the benefit of members (Sexton and Iskow, 1988). Cooperatives might be agricultural, non-agricultural, union or credit organizations. Agricultural cooperatives may provide farmers with processing and/or marketing services, besides technical assistance, training, input and credit provision (Donovan, Blare, and Poole, 2017). Moreover, cooperatives might realise greater bargaining power to obtain more competitive prices for their members, and they influence agricultural policies. Given the potential of agricultural cooperatives in developing countries, their performance is claimed to be of great importance to the improvement of the well-being of their members (Grashuis and Su, 2019).

Agricultural cooperatives have conflicting objectives because they aim to be successful businesses and at the same time strong member organizations (Bijman, Muradian, and Cechin, 2012). Therefore, agricultural cooperatives are defined as successful if they have success both as a business organization and as a member-based organization (Bijman, 2016). Having success as a business organization means that they are profitable businesses and have good economic performance. Their success as member-based organizations means that the organization is working well on behalf of their members and that members' objectives are met (Mann and Stoinescu, 2021).

Regarding failure, failed cooperatives are not necessarily those that cease their operations but those that deviate from expected and desired results, causing losses to members (Kucher et al., 2020). As agricultural cooperatives are expected to fulfil both business organization and member's objectives, failure means that they do not perform well as business organizations and do not work well on behalf of their members (Mann and Stoinescu, 2021).

While there exist several studies on successful agricultural cooperatives (Bijman, 2016; Bijman and Hanisch, 2012; Carlberg et al., 2006; Carr et al., 2008; Martínez Linares and Gómez-Limón, 2014), and on failure of agricultural cooperatives (Basterretxea et al., 2022; Fulton and Hueth, 2009; Golovina and Nilsson, 2011; Grashuis and Cook, 2018; Keeling et al., 2004), knowledge about how success and failure factors relate to each other, and jointly affect the cooperative's performance is scarce (Junior and Wander, 2021; Moon and Lee, 2020; Sexton and Iskow, 1988).

This paper aims to contribute to the body of knowledge on cooperatives. It contributes to the literature by developing and illustrating an integrated framework for success and failure factors of agricultural cooperatives. This framework was developed based on the review of literature, where we examined the literature on farmer cooperatives from developed and developing countries. The integrated framework identifies six groups of factors, namely: (1) Societal environment; (2) Quality of management; (3) Strategy; (4) Member base; (5) Commitment; and (6) Product.

The applicability of the framework is illustrated by a case study depicting the rise and fall of a coffee and cocoa cooperative in Peru, hereafter named the Cooperative. However, this study focused on the cocoa producers of the Cooperative only which are different from the coffee producers. This study would be too broad if we include coffee producers also. The framework and the illustrative case study provide learnings for researchers and managers that have an interest in the effectiveness of agricultural cooperatives. The insights into factors that contribute to the success and failure of cooperatives may also be useful for farmers, non-governmental organizations (NGOs), financial institutions, and policymakers. The illustrative case study shows the applicability of the framework for the analysis of success and failure factors of cooperatives.

2 Literature review

Cooperatives have been important actors in the agricultural sector worldwide for over a century. There are several factors behind the success or failure of cooperatives (Trewin, 2004). This section provides details on the methods for carrying out the literature review on success and failure factors of cooperatives. As a result of this literature review, a framework for success and failure factors of cooperatives was designed. Failure factors may often mirror success factors, but the two represent distinctive features in some of the distinguished categories.

The literature search used the Scopus, Web of Sciences and Google Scholar databases to find relevant articles that focus directly or indirectly on factors that influenced the success or failure of agricultural cooperatives. A search for combinations of relevant keywords:" success", "failure", "cooperatives", "agricultural cooperatives" and "producer organizations" was performed. We also searched relevant articles in typical cooperative journals such as Agribusiness, International Food and Agribusiness Management Review, Sustainability and Annals of Public and Cooperative Economics. The "snowballing" technique was useful to find new relevant articles out of the reference list of selected papers. Priority was given to articles with the following criteria: (a) the article is published in 1990 or later, (b) the article is written in English, c) the article is published in a peer-reviewed journal, conference or book chapter. As a result of this search, 534 documents were identified as appropriate and relevant for the literature review. Then, the titles, keywords and summary of each study were read. Three types of filters were used for the selection of documents for review:

(a) Duplicated documents were excluded;
(b) Titles of the documents were read and those that did not have a relation to the topic were excluded;
(c) Those documents with abstracts and keywords that had no relation to the topic were also excluded.

In total, 61 documents were identified as appropriate and relevant for this study. We used the reference management software tool Endnote for managing all references. We also used thematic coding for grouping success and failure factors. The more refined coding emerged from the content analysis of the 61 documents.

2.1 Success factors in agricultural cooperatives

A variety of factors have a positive impact on the state and development of agricultural cooperatives. These so-called success factors can be related to the societal environment, quality of management, strategy, member base, commitment, and product attributes.

2.1.1 Societal environment

The success of cooperatives may be influenced by the societal environment, which relates to the social, cultural, political and legal context in which a cooperative functions (Bijman and Hanisch, 2012). An important factor mentioned in the literature is whether there is a tradition of cooperatives in a country. If a cooperative tradition exists this may increase the trust and commitment of potential members (Bijman, 2016). Legal aspects, like supporting legislation for cooperatives, a supporting judicial system, and specific tax and competition law, are also factors for success (Bijman, 2016; Bijman, Muradian, Cechin, et al., 2012; Hellin et al., 2009).

Additionally, cooperatives in developing countries often rely on an external facilitator to support the management and organization. The facilitator may provide information, technical assistance and support for building capabilities (Markelova and Mwangi, 2010). Moreover, external support from NGOs, donors, government agencies or private companies, among others, may play an important role in the establishment and continuity of a cooperative (Fischer and Qaim, 2012; Sebhatu et al., 2021). Some important examples are cocoa cooperatives like "El Ceibo" (Bolivia) and "Kuapa Kokoo" (Ghana). Both received significant support from NGOs and international buyers for an extensive period (Donovan et al., 2017; Nelson et al., 2013).

2.1.2 Quality of management

The professionalism of management strongly impacts the competitiveness of cooperatives. Successful cooperatives depend on full-time, highly educated, professional managers (Bijman and Hanisch, 2012; Nyoro et al., 2007; Sebhatu et al., 2021; Sexton and Iskow, 1988). Managers with previous cooperative experience, and the presence of highly trained managers, are indicative of success (Bruynis et al., 2001). Professional managers are capable of handling a diversity of responsibilities like procurement, personnel administration, attending members' concerns, marketing and other daily tasks (Carlberg et al., 2006; Österberg and Nilsson, 2009). Essential is that managers work in the interest of the members – whether they are members of the cooperative or outsiders - and, at the same time, support member commitment (Liang and Hendrikse, 2013). For this purpose, the board of directors needs to have effective control over the strategic development of the cooperative (Bijman, 2016).

2.1.3 Strategy

Agricultural cooperatives have conflicting objectives because they aim to be successful businesses and at the same time strong member organizations. In order to be successful businesses, cooperatives should be able to compete at a global level. Business strategies have to be followed. At the same time, cooperatives should represent the interests of their members. These two often conflicting objectives should be balanced. Taking the right business strategies should be accompanied by providing value to the members (Bijman, Muradian, and Cechin, 2012).

The cooperative's first strategic choice is to decide on its market orientation and its position in the selected supply chain. The identification of a major market opportunity is an important condition to build a sound strategy (Thorp et al., 2005). Farmer cooperatives that are input providers or raw material suppliers for farmers, may choose to extend their activities to produce final products for end consumers (Bijman and Iliopoulos, 2014).

Another strategy of successful cooperatives is the introduction of nonagricultural activities (Briscoe and Ward, 2006; Ortiz-Miranda et al., 2010). This means that cooperatives generate income from other sources than their original business. For instance, African dairy cooperatives received income coming from rental houses, fueling stations, artificial insemination, or investment in cooperative union shares. Diversification may generate additional income and increase members' confidence (Nyoro et al., 2007).

Since agricultural cooperatives are exposed to fierce competition (Tortia et al., 2013), they need to formulate a clear marketing strategy that allows them to be competitive in the market (Benos et al., 2016). Cost-leadership and product differentiation are marketing strategies indicated as important for its success (Grashuis and Magnier, 2018).

The cost-leadership strategy is focused on creating a low-cost position in comparison to their competitors (Banker et al., 2014). In contrast, a product differentiation strategy uses techniques such as branding, unique product characteristics, innovative products and processes, and the advanced management of relationships. An example of the latter is a lamb cooperative in New Zealand that used its network in order to be able to provide chilled lamb products in a niche market (Grashuis, 2018).

2.1.4 Member base

Two important aspects related to the member base are the degree of member homogeneity and the number of members. Member homogeneity relates to the similarity among members in terms of farm size, geographic location, risk preferences, wealth, experience, political preferences, and produce. Depending on the absence or presence of differences in these characteristics, members have respectively similar or different interests (Bijman, 2016; Höhler and Kühl, 2018). The degree of member homogeneity influences the establishment of strategies and the other way around. For instance, there is more member homogeneity when members have similar products that benefit from joint strategies like a generic advertising program (Van Dam et al., 2004). And high member homogeneity allows for more efficiency in the decision-making process (Bijman, 2016) and increases member commitment (Fulton and Giannakas, 2001; Palmer, 2002).

Next, having a large number of members may raise the success of cooperatives (Chlebicka and Pietrzak, 2018; Liang et al., 2022; Sebhatu et al., 2021). One benefit of having many members relates to the members' capital base, which is the amount of financial capital that members possess, a resource for investments in facilities and equipment. For instance, financial resources from members played an important role in the success of cooperatives in the United States (Carlberg et al., 2006). Another important benefit of a large number of members is the lower transaction costs per individual member (Banaszak, 2008).

2.1.5 Commitment

High levels of board and member commitment contribute to the success of agricultural cooperatives (Carlberg et al., 2006; Lutz and Tadesse, 2017; Palmer, 2002), especially in their early stages of existence (Carlberg et al., 2006). Indeed, product volumes and financial results benefit from committed members (Österberg and Nilsson, 2009; Palmer, 2002; Ragazou et al., 2021). Hence, member commitment improves the cooperative's performance in terms of efficient decision-making, operational efficiency, and lower cost of capital, among other benefits (Bruynis et al., 2001).

Successful cooperatives have effective member control as part of their internal governance. They organize frequent meetings between management and members, enabling members to participate in the decision-making process of the cooperative, and forcing the management to be more transparent to its members (Nyoro et al., 2007). The participation of members in the cooperative's governance creates a higher commitment and increases their trust in the management of the cooperative (Österberg and Nilsson, 2009).

2.1.6 Product aspects

Two aspects of products are related to success factors, namely product quality and product quantity. Supplying consistent quality to customers contributes to obtaining higher prices (Carlberg et al., 2006; Nyoro et al., 2007). It is claimed that quality standards are critical for a cooperative's existence, and must be strictly adhered to by members (Bijman and Hanisch, 2012). A case study of Mahagrapes in India shows that the success of the farmers' organization is conditional on the ability of the members to meet market standards (Roy and Thorat, 2008).

Achieving economies of scale is another factor in cooperatives' success. Among other benefits, like an increase of bargaining power, economies of scale are needed to cover fixed costs, like costs of personnel and equipment (Carlberg et al., 2006; Fischer and Qaim, 2012; Nyoro et al., 2007).

2.2 Failure factors of agricultural cooperatives

Failure factors often mirror success factors, but scrutiny shows that these failure factors may have distinctive features. In addition, other factors can be identified that harm the state and development of agricultural cooperatives. Like success factors also failure factors can be related to the societal environment, quality of management, strategy, member base, commitment, and product aspects.

2.2.1 Societal environment

The societal environment relates to the political, legal, economic and social-cultural, setting in which cooperatives function (Bijman and Hanisch, 2012). The lack of a supportive policy environment has been concluded as a failure factor (Chibanda et al., 2009). A regulatory environment that does not enforce contracts, especially for cooperatives with limited reserves, may affect cooperatives negatively. Indeed, cooperatives may financially be severely affected when the other party in a contract does not fulfil its obligations (Nyoro et al., 2007). Cooperatives may also be negatively impacted by unfavourable market conditions, which may relate to price increases of input resources, or to output market factors that influence negatively the margins of the cooperative (Grashuis and Cook, 2018).

A complex factor that may negatively impact a cooperative in the long term is the initial abundance of external financial support without an exit strategy (Golovina and Nilsson, 2011; Grashuis and Dary, 2021). When cooperatives receive donor grants, institutional problems can more easily be covered up in the short term (Esnard et al., 2017), and market forces, e.g. variations of input prices, can be absorbed more easily (Grashuis and Cook, 2018). Problems arise after the period of receiving external financial support when the cooperative is inexperienced in coping with unexpected institutional problems, and/or functioning under tough market forces, while being curbed in financial means. There are cases of cooperatives that failed after funding from donors ceased (Esnard et al., 2017).

2.2.2 Quality of management

Failure of agricultural cooperatives may be caused by poor management (Allahdadi, 2011; Fulton and Hueth, 2009; Grashuis and Cook, 2018; Nyoro et al., 2007; Van der Walt, 2005). Poor management is related to the lack of competent managers with adequate management capabilities (Francesconi and Wouterse, 2019; Van der Walt, 2005). Poor management may result in poor financial performance (Fulton and Hueth, 2009), high levels of debt (Nyoro et al., 2007), high operational costs (Grashuis and Cook, 2018), lack of provision of credits to members, and incapacity of members to fire incompetent management (Machethe, 1990; Ortmann and King, 2007b).

The quality of management is strongly related to representing the interests of the membership (Borgen, 2004). Thus, the divergence of interests between the membership, its board of directors, and the cooperative's management, which gives rise to control problems, should be avoided (Cook, 1995). Some of the risks related to the divergence of interests between these three stakeholders in a cooperative are the existence of hidden actions and/or hidden information and financial misreporting (Borgen, 2004; Fulton and Hueth, 2009).

Lack of competences may be explained by the lack of managerially educated cooperative managers (Francesconi and Wouterse, 2019), and, related to this, the cooperative's difficulty to hire competent managers. Cooperative directors are often low-educated farmers, that lack the necessary skills, and business experience, to attract and select competent managers. Furthermore, even in the case that the cooperative contracts competent managers, the lack of a good reward system may disincentive good management (Esnard et al., 2017; Grashuis, 2018).

2.2.3 Strategy

Another factor for cooperative failure is related to poorly developed business strategies (Page-Reeves, 1998). There are two structural problems related to a cooperative's strategy: the horizon problem, and the portfolio problem.

The horizon problem concerns the discouragement of members to invest in long-term projects, as they will benefit only late on the time horizon of their expected membership (Valentinov, 2007). Moreover, members prefer to receive short-term economic returns instead of uncertain long-term benefits (e.g., from investments in research and development, marketing, or other intangible assets) (Giannakas et al., 2016; Menard, 2000; Ortmann and King, 2007a).

The portfolio problem (Feng and Hendrikse, 2012) is the lack of reflection with investment decisions of the cooperative on the variety of interests and risk attitudes among members of the cooperative (Sykuta and Cook, 2001). Cooperative members are in general not able to diversify investment portfolios according to their situation in terms of wealth and risk preferences (Royer, 1999).

2.2.4 Member base

Two important aspects related to the member base are the number of members and the degree of homogeneity. A low number of members, leads to lower sales and lower payout rates, given that cooperatives face high fixed costs (Bhuyan, 2007; Nyoro et al., 2007). The lack of sufficient members also leads to a limited capital base resulting in possible equity problems (Grashuis and Cook, 2018; Nyoro et al., 2007). Many cooperatives have failed because of a lack of funds or capital (Fulton and Hueth, 2009; Van der Walt, 2005). Another reason for a limited capital base is the lack of sufficient capital commitments by members (Grashuis and Cook, 2018).

The other important aspect related to the member base is member homogeneity. While member homogeneity contributes to high member commitment, which is a success factor (Palmer, 2002), member heterogeneity may be a failure factor in agricultural cooperatives (Höhler and Kühl, 2018; Iliopoulos and Valentinov, 2018; Sebhatu et al., 2021).

2.2.5 Commitment

Low member commitment is another factor negatively impacting cooperatives, that may lead to the demise of cooperatives (Carr et al., 2008; Ragazou et al., 2021). A detailed study on failed cooperatives in South Africa suggests that member's lack of identity with their cooperatives, lack of involvement of members in policy-decision making, and lack of information of members about the cooperative, are factors that contribute to lower commitment and failure (Borda-Rodriguez et al., 2016; Machethe, 1990).

The free-rider problem is also another failure factor for agricultural cooperatives. This problem arises when existing members have disincentives to invest in the cooperative because new members could obtain the same benefits as them, without having invested (Iliopoulos, 2005).

2.2.6 Product aspects

Food product quality refers to product attributes, like taste, appearance and convenience, but also characteristics of the production process (e.g., organic product, Fair Trade product, etc.). Product quality is crucial in current food markets (Mérel et al., 2009). A failure factor in cooperatives, therefore, is inferior product quality (Grashuis, 2018). In this respect, unsuccessful cooperatives do not (adequately) perform quality control measures, supervision of agricultural practices in the fields, the use of appropriate control technology, or the necessary regular checks on collection points, storage and processing plants (Nyoro et al., 2007).

3 Methodology

To indicate the applicability of the framework for the analysis of success and failure factors of cooperatives we analyse a Peruvian agricultural cooperative, hereafter named the Cooperative. The Cooperative presents an interesting case for the integrated analysis of success and failure factors, because according to the experts that know this cooperative very well, it has a history of ups and downs that can provide meaningful results for this study.

The Cooperative was the biggest agricultural cooperative of the country in the 1970s with 3,600 members but experienced a crisis in the 1990s, that resulted in a membership of some 50 farmers in 1998. By 2014, following the intervention of an international NGO, the Cooperative had recovered, with its membership rising to 934. The international NGO supported the Cooperative in three areas: political incidence, financial support, and organizational strengthening (production and commercialization). By 2016, the membership went down to 633. Currently, in 2022, the cooperative has 372 members.

The total export volume of cocoa beans by the Cooperative saw an average annual growth rate of 2.2% between 2008 and 2021. Three different periods may be observed in Figure 1:

- A decline period (2008 and 2012)
- A growth period (2013)
- A decline period (2014-2021)
- A decline period (2008 and 2012). The export volume of cocoa beans by the Cooperative decreased at an average annual rate of 2.82% between 2008 and 2012. Cocoa beans exports amounted to an estimated average of 81 MT for this period.
- A growth period (2013). The Cooperative's cocoa bean exports rose to 580 MT in 2013, which meant a growth of 1063% compared to 2012.
- A decline period (2014-2021). The export volume of cocoa beans by the Cooperative decreased at an average annual rate of 16.4% between 2014 and 2021. Cocoa beans exports amounted to an estimated average of 155 MT for this period.

Table 1
Summary of success and failure factors according to the literature review.

Categories	SUCCESS		FAILURE	
	Authors	Factors	Factors	Authors
SOCIETAL ENVIRONMENT	Business environment			
	Bijman, Iliopoulos et al. (2012)	Country's history	Lack of supportive policy environment	Chibanda, Ortmann et al. (2009)*
	Hellin et al. (2009)*	Supportive legal and judicial system for low-cost contract enforcement	Weak regulatory environment for contract enforcement	Nyoro, Ngugi et al. (2007)*
	Bijman (2016)	Supporting cooperative legislation	Unfavourable market conditions	Grashuis and Cook (2018)
	External facilitators' support			
	Sebhatu et al (2021)* MarkelovaandMwangi (2010)* Fischer and Qaim (2012)* Donovan, et al. (2017)* Nelson, et al.(2013)*	External facilitator: support from NGOs, donors, international buyers, etc	Dependency on external (financial) support Ceasing of donors' funding	Golovina and Nilsson (2011) Grashuis and Dary (2021) Esnard, Lyne et al. (2017)*
QUALITY OF MANAGEMENT	Member control			
	Bijman (2016)	Effective member control	Control problems	Cook (1995)
	Quality of management			
	Sebhatu et al (2021)* Nyoro et al. (2007)*; Sexton and Iskow (1988) Bijman, Iliopoulos et al. (2012) Carlberg, Ward et al. (2006) Österberg and Nilsson (2009)	Full-time professional management	Lack of professional managers	Fulton and Hueth (2009); Van der Walt (2005)*; Nyoro et al. (2007)*; Ortmann and King (2007)*; Grashuis and Cook (2018); Allahdadi (2011)
			Lack of skills of cooperative's directors	Esnard, Lyne et al. (2017)*
			Lack of reward for good performance	Esnard, Lyne et al. (2017)*
			Hidden actions and/or information	Borgen (2004)*
			Financial misreporting	Fulton and Hueth (2009)
			Managers and directors with low education level	Nyoro, Ngugi et al. (2007)*
			Poor financial performance	Fulton and Hueth (2009)
			High operational costs	Grashuis and Cook (2018)
			High levels of debts	Nyoro, Ngugi et al. (2007)*
	Liang and Hendrikse (2013)	Management work in the interest of cooperative's members	Lack of provision of credits to members	Ortmann and King (2007)*
			Incapacity of members to fire inefficient management	Machethe (1990)*
	Bruynis, Goldsmith et al. (2001)	Managers with previous cooperative experience and constant training	Lack of business experience of directors	Grashuis and Cook (2018)

Categories	SUCCESS		FAILURE	
	Authors	Factors	Factors	Authors
STRATEGY	Thorp, Stewart et al. (2005)*	Economic viability of identified market opportunity	Poor development of marketing strategy	Page-Reeves (1998)*
	Nyoro et al. (2007)* Bijman, Iliopoulos et al. (2012)	Vertical integration	Horizon problems	Cook (1995); Giannakas et al. (2016) Menard (2000) ; Ortmann and King (2007)*; Valentinov (2007)
	Briscoe and Ward (2006) Ortiz-Miranda et al. (2010) Nyoro et al. (2007)*	Introduction of nonagricultural activities		
	Grashuis and Cook (2018) Benos at al. (2016) Banker et al. (2014)	Clear marketing strategy	Portfolio problems	Cook (1995) Ortmann and King (2007)* Feng and Hendrikse (2012)
MEMBER BASE	Bijman (2016) Fulton and Giannakas (2001) Palmer (2002)	High member homogeneity	Member heterogeneity	Sebhatu et al (2021)* Höhler and Kühl (2018) Iliopoulos and Valentinov (2018)
	Chlebicka and Pietrzak (2018) Q. Liang et al.(2022) Sebhatu et al. (2021)* Nyoro et al. (2007)* Banaszak (2008)	Large number of members	Lack of sufficient membership	Nyoro et al. (2007) Bhuyan (2007)
COMMITMENT	Österberg and Nilsson (2009) Palmer (2002) Ragazou et al. (2021)	Committed members	Low member commitment	Ragazou et al. (2021) Carr, Kariyawasam et al. (2008)
			Lack of involvement of members in policy-decision making	Machethe (1990) Borda-Rodriguez et al. (2016)
	Carlberg, Ward et al. (2006)	Committed board		
	Nyoro et al. (2007)*	Frequent meetings	Lack of identity	
			Lack of information to members about cooperatives	
			Free rider problem	Iliopoulos (2005)
PRODUCT	Product quality			
	Bijman, Iliopoulos et al. (2012)	Strict product quality rules	Inferior product quality, lack of quality control	Grashuis and Cook (2018)
	Carlberg, Ward et al. (2006)	Consistent quality	Lack of quality control measures	Nyoro et al. (2007)*
	Roy and Thorat (2008)*	Members' ability to meet standards		
	Product quantity			
	Carlberg, Ward et al. (2006) Fischer and Qaim (2012) Nyoro et al. (2007)*	Economies of scale		

* refers to empirical research from developing countries

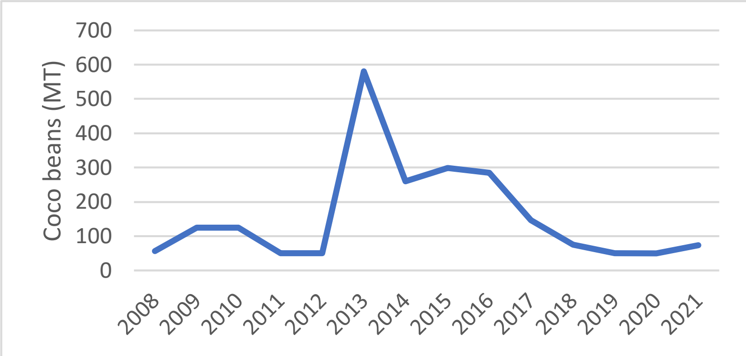

Figure 1: Export volume of cocoa beans (metric tons) by the Cooperative (2008-2021).

Table 2 presents an overview of the interviewees for the case study. Primary data was gathered through ten semi-structured, one-on-one personal in-depth interviews carried out from September 2017 to September 2018. All the interviews were conducted in Spanish and translated into English. The interview script was pre-tested with two experts. As a result, some adjustments were made to the initial questionnaire.

The rationale for selecting the interviewees was their level of knowledge of the Peruvian cocoa sector, their capability to present different perspectives – among which the member perspective - and their knowledge of the internal functioning of the Cooperative, next to their availability for partaking in a personal interview. Prior to commencement of the study, ethical approval was obtained from the case company, apart from oral informed consent provided by individual interviewees. Privacy issues forbid publicly disclosing information on interviewees that makes it possible to trace data back to identifiable persons. Therefore, respondents of related organisations are randomly coded [S1] to [S5], and respondents of the cooperative are randomly coded [C1] to [C5], for in-text referencing.

The interviewees were divided into two groups based on their knowledge of the Cooperative. The first group of interviewees was selected for their knowledge of the cocoa sector in Peru. These interviewees are part of organizations related to the cocoa sector, namely: The Investment Manager of an international bank, the Manager of a cocoa producer association, the Official of an international NGO in Peru and the Coordinator of an exporter's association. The second group of interviewees was selected based on their knowledge about the reality of the cooperative and their capability of presenting the member perspective. These interviewees are directly involved in the functioning of the Cooperative: The President of the Cooperative, the ex-staff member of the Cooperative, two experts of a cocoa producer umbrella organization, and a farmer member of the Cooperative. They knew very well the history of the Cooperative, including its successes and failures, and were able to identify success and failure factors.

The interviewees were invited by means of e-mails and follow-up phone calls. Six interviews were conducted face-to-face while the remaining four interviews were conducted via regular telephone or Skype. Interviews were semi-structured and each lasted about one hour. With the oral permission of interviewees, all interviews were audio recorded and transcribed. The interviews started by gathering general information about the interviewees. Two interviewees were interviewed on the same day but at different times and places. The first interview took place in the morning and the second interview took place in the afternoon. Table 2 shows these differences in time.

Secondary data was used to triangulate the primary data from the interviews (Harris, 2001). Secondary data were gathered from a diversity of sources, such as government websites, and impact assessment publications by international NGOs even on this specific case study cooperative.

Regarding the analysis of the findings, factors were classified as having a strong, moderate, limited or no presence. This differentiation was based on the number of interviewees and secondary data sources supporting certain factors as success or failure factors. Factors were then classified as having a strong (4 sources), moderate (2-3 sources) and limited (1 source) presence.

Table 2
List of interviewees

Interviewees	Date of interview
RELATED ORGANISATIONS [S1 to S5]	
Market coordinator – international NGO	01/09/2017
Coordinator of exporter's Association	15/11/2017
Investment manager of international bank	12/12/2017
Official of International cooperation agency in Peru	12/02/2018
Managing director of cocoa producer organization in Peru	13/03/2018
THE COOPERATIVE [C1 to C5]	
Ex-staff member of the Cooperative	05/03/2018
Farmer member of the Cooperative	15/07/2018
President of the Cooperative	01/09/2018
Expert of cocoa producer's umbrella organization 1	13/09/2018 (morning)
Expert of cocoa producer's umbrella organization 2	13/09/2018 (afternoon)

4 Case study findings

This section starts off with a short introduction to the case study cooperative, here named the Cooperative. After that, the analysis follows, using the structure of the preceding literature overview: societal environment, quality of management, strategy, member base and product aspects.

4.1 Introduction to the case study

In the central part of Peru, cooperatives were initiated in the 1960s, as a form of collaboration among producers to realize larger sales volumes, and better payment conditions. In the 1990s, cooperatives experienced substantial growth caused by their direct (sales) connections with foreign buyers. These relationships between agricultural cooperatives and foreign buyers have had an important impact on the social development of the regions (Javier, 2016).

The Cooperative was one of the early and larger cooperatives, located in the Junin region. In this region, the main crops are coffee, oranges, ginger, bananas, pineapples, and cocoa. The Cooperative started its activities, initially mainly trading coffee beans, in 1965 with 50 members. The Cooperative grew until the 1970's when it reached 3,600 members and started to falter in the 1990s until 1998. In 1998, the Cooperative was in a critical financial situation with its goods subject to a mortgage and only 50 members. Following the intervention of an international NGO, the number of cooperative members increased again to 934 in 2014 (SOS Faim, 2015). Since 2014 the number of members has dropped again to around 400 members, comprising coffee growers (70%) and cocoa growers (30%) (Javier, 2016). The Cooperative is still in the process of improving its governance, management quality, and member commitment.

Currently, the Cooperative exports coffee and cocoa beans to international markets. It also processes cocoa beans (cocoa powder, cocoa paste and chocolate) and sells them to the domestic market. Cocoa prices are based on the stock market and the farmers receive a premium for organic and Fair trade certification.

The focus of this study is to find which success or failure factors affect cocoa farmers in this Cooperative. We chose to apply the framework only to the cocoa activities of the Cooperative because including coffee activities would make it too broad.

4.2 Societal environment

Societal success and failure factors are here grouped under two subcategories: the business environment and external facilitator's support (see Table 1)

4.2.1 Business environment

Since 1985, the Peruvian government, together with international development agencies, bilateral aid programs, NGOs and private firms, actively promotes the cultivation of cocoa (IICA, 2009). In this manner, farmers are encouraged to prefer cocoa cultivation over coca leaf production as their economic activity (Scott et al., 2015).

Since the year 2000, the national cocoa production increased more than fivefold, up to 160,2 thousand metric tons (MT) in 2021. In 2021, cocoa exports increased up to US$303 million and the prime export markets were the Netherlands (23.7%), Indonesia (22.8%) and Belgium (11.3%) (MINAGRI, 2022).

According to the International Cocoa Organization (ICCO), Peru is classified as a country that produces fine and flavour cocoa since 2010 (MINAGRI-DGPA-DEEIA, 2016). Moreover, Peru is well positioned in the worldwide organic cocoa industry, it is the second producer of organic cocoa worldwide (MINAGRI, 2022). Interestingly, obtaining organic certification is relatively easy for Peruvian farmers as, due to the lack of economic resources, the application of pesticides has always been low [S4].

Peruvian agriculture is characterized by the fragmentation of land. Farmers have small plots of land with low volumes of production. One of the most common challenges for cocoa farmers is the lack of access to financial resources [S2]. Fair Trade premiums have gone down in the last years [S4]. Finally, security is a national problem in Peru. For example, the theft of cocoa beans from trucks occurs regularly [S3].

An international challenge for Peru is the European Union (EU) regulation 488/2014 on the level of Cadmium in chocolate (Van Santvoort, 2018) This regulation weighs negatively on the Peruvian cocoa sector, as natural cadmium levels in soils are relatively high in certain parts of Peru [S4]. Apart from that, customers in general become stricter about organic standards. Since 2019, the testing of organic products has become stricter [C4].

4.2.2 Support by external facilitators

In general, the role of external facilitators (NGOs, Government and other organizations) has contributed to the early success of the cooperative. Historically, the Cooperative benefited from different types of external funds, such as NGO Rikolto and SOS Faim from Belgium; DEVIDA (anti-drugs program from the Peruvian Government), Fondoempleo and Agroideas (Competitiveness Program from the Peruvian Government); APPCACAO (National Cocoa Organization) and Central Cafe y Cacao (National Cocoa and Coffee Organization of Cooperatives). Support was provided in the form of access to working capital, technical aid, knowledge and physical infrastructure.

For instance, in 2014, the Cooperative received support from different organizations to increase the productivity and quality of cocoa beans. Another example of the support by external facilitators is that between 2016 and 2017, the Cooperative received support to improve cocoa production quality, which was funded by Fair Trade National Organization (CLAC), the NGO CTB from Belgium, and Heifer from the Netherlands[C5]. All this support increased the interest and commitment of members to the Cooperative since they were beneficiaries of training and technical advice to improve their income.

However, once the Cooperative did not get any additional support from external organizations, its members were discouraged to bring their cocoa to the Cooperative. And also the Cooperative did not have access to working capital, which decreased the possibility to pay in cash to the members for their cocoa. Currently, although the Cooperative has managed to receive financial loans from international banks, like Shared Interest, Rabobank and Inconfin [C4], the financial situation of the Cooperative is still critical [C5]. In 2019, the Cooperative had a financial debt of US$60,000 with one local bank [C3] Given this situation, the Cooperative was not able to compete with private companies that paid in cash for cocoa beans. As a result, the Cooperative exported around 50 MT in 2019, less than in previous years (75 MT in 2018 and 147 MT in 2017).

4.3 Quality of management

Success and failure factors are related to two subcategories: member control and quality of management (see Table 1).

4.3.1 Member control and governance

It has been outlined by the interviewees that over time the lack of effective member control has created several severe challenges for the Cooperative, such as poor internal communication, weak administration, lack of transparency, and corruption. One interviewee noted that internal communication was weak and responsibilities in the Cooperative were not well defined, leading to if not causing various conflicts between the manager and the board of directors (member representatives): "*The main weakness of the Cooperative is the lack of internal communication and they do not have clarity regarding internal responsibilities. Sometimes, the Manager wants to do everything, sometimes the President and the supervisory board observe many things that impede the organization to progress*" [C5].

The cause of these problems was pointed out in an external report: "*The Cooperative did not pay sufficient attention to their governance structures, focusing instead on aspects of production and the opening of new markets*" (SOS Faim, 2015). Similarly, an external report on the Cooperative performance suggested that control mechanisms on top management were not well developed which may even have resulted in corruption. *"... the corruption is difficult to find, you may see that corruption does not leave traces like invoices or receipts at all. Evidence, yes, there is evidence..."* (Javier, 2016).

Moreover, one interviewee brought to the fore that satisfaction of members relates to a sense of belonging to their cooperative, and to social relationships within the cooperative. Many more cooperatives may have lost this sense of cooperativism: *"Most Peruvian cooperatives lack managers who are prepared/trained to serve social organisations"*

[C2]. These problems may not only affect the internal functioning of the Cooperative but also its external relationships: *"The Cooperative has lost buyer contacts because the internal organizational system is not working well"* [C5]. Nonetheless, the Cooperative leaders expressed their willingness to improve their situation through improvements in their education committees and advancing the relevant skills in the Board of Directors and the Supervisory Committee: *"We must reinvest in the education committees for cooperatives. And we need trained people to be team players for them to identify themselves to their cooperative"* (SOS Faim, 2015).

4.3.2 Quality of management

Both related organizations' interviewees and the Cooperative's interviewees referred to the quality of management as a key internal factor that determines the success or failure of a cooperative: "...*the quality of management is the key for the success of a cooperative*" [S5; C1]. A common theme that surfaced was that past Cooperative managers may have lacked the necessary knowledge to improve the organization. Interviewees note that this lack of knowledge could have been related to the capacity of the directors of the Cooperative, which are mostly smallholder producers not educated beyond primary or secondary school: *"The Cooperative directors think that it is too expensive to hire a skilled manager. For instance, the Cooperative appointed as general manager a former extension officer, who was not a specialist in management, but in technical aspects of production"* [C1]. Similarly, the education level of the membership may also be a reason why it is difficult for members to control the Cooperative's management: "*The problem in the Cooperative is that the members are not trained to supervise managers. For instance, nobody knows what cash flow is*" (Javier, 2016). Another management-related problem was the frequent changes in the management positions, as one report states: "...the Cooperative has been going through an organizational crisis, and as such there have been a lot of changes in direction and management positions" (NewForesight, 2016).

A related concern here was the administrative processes for members that may have performed poorly. Some interviewees raised doubts about the proper management of credits to members. Talking about this issue, an interviewee said: *"In many cases members were provided with credit without the existence of a mortgage letter. These irregularities in the process of lending money to members not only imply a financial risk for The Cooperative, but also show an important control problem"* [C1]. Similarly, a report on the Cooperative mentions this mismanagement in the credits to the membership: *"Although this lending policy was beneficial for the members, it entailed considerable risks for the Cooperative like the price fluctuations in the market*" (Javier, 2016).

The accuracy of presented financial statements in the annual assembly was a final related area of concern, as argued by an interviewee: "*These statements reflected efforts by the management to show only positive results. They could have made up the Cooperative's financial statements to show that the management of the Cooperative was doing a good job"* [C1].

4.4 Strategy

A positive characteristic, supported by NGOs, is that the Cooperative has developed a clear differentiation strategy. Several interviewees expressed views that their cocoa has two certifications, namely organic and Fair Trade, bringing them better prices than otherwise from the conventional commodity cocoa market. Premiums for organic and Fair Trade are fixed. For instance, buyers pay a premium of US$300/TN for organic cocoa and US$200/TN for Fair Trade cocoa. In total, they may receive US$500/TN as a premium above the cocoa stock market price. Other interviewees expressed concerns on this matter because many members do not receive the premium at pay-out, or do not receive it at all, as one interviewee reported *"...premiums, like for instance, the Fair Trade gives a premium price above the stock market price ... but producers do not receive this money"* [C3].

4.5 Member base

Member base relates to homogeneity and number of members. Regarding homogeneity, the Cooperative has high member homogeneity, which would be a positive factor for success. The Cooperative markets only two products, namely coffee and cocoa, and by and large the respective members have the same interests [C4]. Regarding the number of members, there were some suggestions that the size of a cooperative in terms of membership does not have an impact on smallholder performance. It was suggested that the quality of management is the dominant factor for success. As one interviewee put it: *"...the quality of management has an impact on smallholder farmer's performance, not size"* [S5].

4.6 Commitment

A common concern among interviewees was about low member commitment. As one interviewee reported: *"If we talk about member commitment in our Cooperative, I would say that commitment is very weak"* [C4]. Similarly, another interviewee referenced that members have a lack of trust in their leaders and do not participate actively in the activities of the Cooperative: "... *there is a lot of distrust because when there is trust, the cooperative's members participate actively, but in this case, I do not see that. Some members have decided to leave the Cooperative or go to another* *organization because they do not trust their Cooperative*" [C5]. The challenge of low member participation has also been pointed out in an external report on the Cooperative: "*The deficit in member participation plus assemblies made up of delegates...plus a few bad economic decisions by the management...led members to lose confidence in their Cooperative and withdraw...*" (SOS Faim, 2015).

The issue was raised that in general; the Cooperative members accept whatever the directors propose in the assemblies. For instance, in the case of elections, when directors call to a general assembly and present their candidates, these are mostly approved by the farmers. Related is the concern that members may not participate in the decisions related to the distribution of Fair Trade premiums. In the annual assembly the Directive Council and the manager present proposals regarding the distribution of premiums. In the words of an interviewee: *"The administration and the management of the Cooperative propose something, and it is rapidly accepted."* [C1]. It was claimed that the management does not gather information about members´ preferences before the annual assembly.

When asked about the members' identification with the Cooperative, the interviewees were unanimous in the view that most members do not identify themselves with the Cooperative. For example, it was noted that there is a lot of side-selling when spot market prices are higher than the offer of the Cooperative. This problem may be a permanent challenge for the Cooperative: "...*when the market price is above the price that we have in contracts- including Fair Trade surplus and everything- members do not bring their cocoa to the Cooperative. They go and sell to another person. We still have difficulties in this regard. Members are not faithful to the organization*" [C4]. A related concern here was the challenge of price arrangements. It was suggested that most of the organic producers, the members of the Cooperative, complain that there is no difference between members and non-members: *"Members of The Cooperative complain about receiving the same price as non-members for their organic cocoa"* [C3; C1].

Interviewees indicate that low member commitment may also be recognized in the low member usage of equipment and machines available at the Cooperative: "*For example, drying machines are present, but members do not use them. On the one hand, management does not pay attention to the usage and maintenance of this machinery, on the other hand, members distrust the weighing procedures at these facilities. Farmers prefer to dry their beans in other places, and after that, they bring their cocoa to the Cooperative"* [C1].

4.7 Product aspects

Finally, success and failure factors in agricultural cooperatives may also be related to product quality and product quantity (see Table 1).

A surfacing common success factor is that the Cooperative has members with abilities to meet international quality standards. The accomplishment of these standards allows the Cooperative to export organic and Fair Trade cocoa beans [C4].

A related concern to product aspects was the lack of quality control measures. One interviewee argued that members may need more extension officers, because previous extension officers were hired for the certification process, but not for improving the production of the crops. A related area of concern was the level of integrity of the extension officers. Irregularities may have taken place in the certification process, in the past. As one interviewee commented: *"The farmers stated that the extension's officer never came to visit them, and they did not recognize their signatures because those were fake"* [C1].

5 Discussion and conclusions

Much of the literature on agricultural cooperatives provides economic analysis, leaving out sociological analysis. As part of this sociological analysis, cooperative tensions, dilemmas, conflicts, and market forces are not taken into account (Ajates, 2020). The results of this paper indicate that success and failure factors are related both to the economic and sociological context in which the cooperative operates. For instance: member commitment, degree of involvement of members in policy-decision making and member's lack of identity are some of the failure factors that are found in the case study, which are related to the sociological context of the cooperative.

5.1 Case discussion

In this paper, we propose a theoretical framework based on published research from developed and developing countries and illustrate it with a case study. The paper aims to present a coherent, broad framework presenting plausible success and failure factors of agricultural cooperatives. Table 1 groups these success and failure factors from the literature review into the following six categories: societal environment, management, strategy, member base, commitment, and product aspects. The applicability of the framework was illustrated by a case study cooperative, named the Cooperative. Table 3 summarizes the results of the case analysis.

Regarding the societal environment, the results of our case study show that the country's history and the support of external facilitators played an important role in the success and failure of the Cooperative, which is in line with the analyzed literature (Bijman, Muradian, Cechin, et al., 2012; Donovan et al., 2017; Fischer and Qaim, 2012; Markelova and Mwangi, 2010; Nelson et al., 2013; Sebhatu et al., 2021). The case study shows that the organic certification was relatively easy to achieve for the Cooperative given that the members did not use pesticides in their fields. NGOs, donors and the Government supported the Cooperative in several aspects, especially in its early years stimulating the Cooperative to grow (external facilitators). However, the situation of the Cooperative in 2022 is still critical because it has increased its debts to US$ 285,000. Regarding the influence of COVID-19, it affected the members' supply of cocoa beans to the Cooperative: members' supply of cocoa beans diminished by 30% in 2020. In 2021, the supply of cocoa beans increased again by 30% and continues to be the same in 2022.

The literature suggests that a supportive legal and judicial system and supporting cooperative legislation contribute to a cooperative's success. However, these factors were not found in the case study, as the Cooperative's earlier success seems to have been unrelated to these factors. Further, our research shows that the international positioning of Peruvian cocoa as high-quality cocoa has a positive impact on the development of Peruvian cocoa cooperatives. This image of the country is a new factor, adding to the literature; it suggests that the success of a cooperative may be positively influenced by a country's image.

This notwithstanding, the case study also shows several typical sector characteristics as failure factors, like the fragmentation of farmland in Peru, which explains the prevalence of smallholder farmers. This finding is consistent with that of Chibanda et al. (2009) who suggested the lack of a supportive agricultural policy environment as a failure factor. The cessation of donor funding was also considered by the interviewees as a failure factor, which is in line with the findings of Esnard et al. (2017). Furthermore, international challenges like new EU regulations on Cadmium-levels in chocolate (Vanderschueren et al., 2021), and the intensified testing of organic products were regarded as part of unfavourable market conditions, which is in line with Grashuis and Cook (2018). However, strict regulations could be perceived as a positive mechanism to raise quality and safety standards to secure public health. In contrast to the literature (Nyoro et al., 2007) the findings found no evidence of a weak regulatory environment for contract enforcement as a failure factor.

With respect to the quality of management, the case study indicates that the low education level of the cooperative directors, the lack of business experience of the cooperative directors and the lack of professional managers, cause poor management as an important failure factor. This confirms the literature (Allahdadi, 2011; Fulton and Hueth, 2009; Grashuis and Cook, 2018; Nyoro et al., 2007; Ortmann and King, 2007b; Van der Walt, 2005). Our case study also indicate that the consequences of poor management may be hidden actions and financial misreporting, confirming Borgen (2004), and Fulton and Hueth (2009). Moreover, high levels of debt were recognized as having a negative impact (failure factor) on the cooperative, as suggested by Nyoro et al. (2007) and Fulton and Hueth (2009). Finally, different sources from the case study suggest that internal corruption in the Cooperative was a failure factor, a failure factor not stressed in the literature.

Furthermore, we did not find certain information in our case study related to a lack of reward for good performance (Esnard et al., 2017), high operational costs (Grashuis and Cook, 2018), insufficient provision of credits to members (Ortmann and King, 2007a), and the members' incapacity to fire inefficient management (Machethe, 1990). Our case study also does not indicate the presence of managers with previous cooperative experience and constant training as a success factor (Bruynis et al., 2001).

On strategy development, our case study shows that the economic viability of an identified market opportunity and the differentiation strategy contribute to a cooperative's success. In the case study, organic and Fair Trade certifications were good market opportunities identified by the Cooperative. These certifications were used as part of their differentiation strategy. The results of our case study add to the findings of Thorp et al. (2005), Carlberg et al. (2006), Bijman and Hanisch (2012) and Bijman (2016).

Further, the case study suggests that horizon problems which concern the discouragement of members to invest in long-term projects, may indeed contribute to a cooperative's failure, an observation in line with publications (Cook, 1995; Giannakas et al., 2016; Menard, 2000; Ortmann and King, 2007b; Valentinov, 2007). Furthermore, poor development of the marketing strategy and portfolio problems were not indicated as failure factors in the case study, which differ from the findings of Page-Reeves (1998), Cook (1995), Ortmann and King (2007a), and Feng and Hendrikse (2012).

The case study indicates that high member homogeneity may not be a sufficient condition for a cooperative's success. This outcome adds to the findings of (Bijman, 2016; Fulton and Giannakas, 2001; Palmer, 2002) who found that member homogeneity is related to efficiency in the decision-making process and increases member commitment. Our case study also suggests that the number of members may not be an explanatory factor for the success or failure of a cooperative which differs from the findings of Chlebicka and Pietrzak (2018), Liang et al. (2022), Sebhatu et al. (2021), Nyoro et al. (2007) and Banaszak (2008) who consider the number of members as a success factor.

Regarding commitment, our case study indicates that the lack of commitment may be a strong failure factor for a cooperative (Carr et al., 2008). The lack of member commitment could be caused by a lack of involvement of members in policy-decision making, a lack of information to members from the management, and member's lack of identification with their cooperative, items in line with the findings of Machethe (1990) and Borda-Rodriguez et al. (2016). Our case study also indicates that the cooperative education of members is a key success factor, which has not been established in the literature.

Finally, our case study shows that strict product quality rules, consistent quality, member's ability to meet standards, and economies of scale, may contribute to a cooperative's success, conform Bijman and Hanisch (2012), Carlberg et al. (2006), Roy and Thorat (2008), Fischer and Qaim (2012) and Nyoro et al. (2007). The case study, finally, suggests that the lack of quality control measures may contribute to cooperative's failure (Nyoro et al., 2007).

Table 3
Case study findings.

SUCCESS FACTORS		**FAILURE FACTORS**	
SOCIETAL ENVIRONMENT			
Business environment			
Country's history	++	++	Lack of supportive policy environment
Supportive legal and judicial system for low-cost contract enforcement			Weak regulatory environment for contract enforcement
Supporting cooperative legislation		++	Unfavorable market conditions
Country's image	++		
External facilitators' support			
External facilitator: support from NGOs, donors, international buyers, etc.	++	++	Cessation of donors' funding
QUALITY OF MANAGEMENT			
Member control			
Effective member control	--		Control problems
Cooperative education for members	++	++	Internal corruption
Quality of management			
Full time professional management		++	Lack of professional managers
		++	Lack of skills of cooperative's directors
			Lack of reward for good performance
		++	Hidden actions and/or information
		++	Financial misreporting
		++	Managers and directors with low education level
		++	Poor financial performance
			High operational costs
		++	High levels of debts
			Lack of provision of credits to members
			Member's incapacity to fire inefficient management
Managers with previous cooperative experience and constant training		++	Lack of business experience of cooperative's directors

Table 3
(continued)

SUCCESS FACTORS			FAILURE FACTORS
STRATEGY			
Economic viability of identified market opportunity	++	--	Poor development of marketing strategy
Vertical integration	--	+/-	Horizon problems
Nonagricultural activities			Portfolio problems
Clear marketing strategy	++		
Implementation of market-oriented strategies	++		
MEMBER BASE			
High member homogeneity	++	--	Member heterogeneity
Large number of members	++	--	Lack of sufficient membership
COMMITMENT			
Cooperative education of members	++		
Committed members		++	Low member commitment
Committed board		++	Lack of involvement of members in policy-decision making
Frequent meetings		++	Lack of information to members about cooperatives
		++	Member's lack of identity
PRODUCT ASPECTS			
Product quality			
Strict product quality rules	++	++	Lack of quality control measures
Consistent quality	+/-		Inferior product quality
Members' ability to meet standards	+/-		
Product quantity			
Large quantity of products	++		

++: strong presence; +: moderate presence; +/-: limited presence; --: no presence; empty box: no information available

5.2 Conclusions and further research

This study is one of the first papers that studies systematically both success and failure factors of cooperatives.

The research aimed to design an integrated framework of success and failure factors in agricultural cooperatives, based on the literature from developed and developing countries. At category-level (the societal environment, quality of management, strategy, member base, commitment, and product aspects (see Table 1)) we found that failure factors mirror success factors. However, the literature shows also specific aspects in (sub-)categories, that are stressed as either positive (success) or negative (failure) factors in the analysis of an agricultural cooperative, as Tables 1 and 3 show. Moreover, there are specific factors raised in the literature that are only discussed as success or as failure factors, like the horizon and portfolio problems of cooperatives.

The applicability of the framework was successfully illustrated by a case study of a cooperative. Successful factors identified in the case of the Cooperative are: external facilitator support; economic viability of identified market opportunity; large number of members; member’s ability to meet standards and large quantities of product. The recognized most relevant failure factors are: the lack of a supportive environment; dependency and ceasing of donors’ funding; lack of professional managers; lack of skills of cooperative's directors; hidden actions and/or information; managers and directors with low education level; high levels of debts; lack of information to members about cooperatives and the lack of quality control measures.

Reflecting on the case study, it diverges from the reviewed literature, like the impact of the country's cooperative history. A country's image may be added to the literature as a success factor. We also learnt that other results are not yet often referred to in the reviewed literature, especially the failure factor of internal corruption.

These findings have important implications for cooperatives in developing countries. More specifically, the findings from this study contribute to the current literature in that it provides a framework for managers to analyse the performance of their cooperative, and to identify related success and failure factors. Additionally, it explicates that various success and failure factors are interrelated. For instance, the role of external facilitators may be positive for a cooperative for a certain time; but it may become negative after facilitation stops.

Finally, this research has several limitations. The research identified success or failure factors in agricultural cooperatives, but the measurement of success or failure in terms of performance indicators was not investigated. The research was only qualitative, and the framework derived from the literature was applied to only one case, with a moderate number of respondents. Moreover, our study focused only on the cocoa members of a cocoa and coffee cooperative. Further research can take these limitations into account. Although the results of our case study do not allow for generalizations, it does indicate the applicability of the literature-based framework. Therefore, it is not the conclusiveness of the case-based results that this paper aims for, but the contribution to the body of knowledge by the development and illustration of a framework on success and failure factors in agricultural cooperatives.

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